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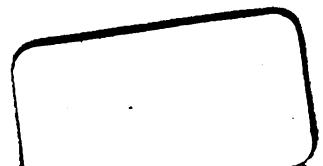
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**UNDER THE SUPERINTENDENCE OF THE SOCIETY FOR THE DIFFUSION OF
USEFUL KNOWLEDGE.**

THE

GALLERY OF PORTRAITS:

WITH

MEMOIRS.

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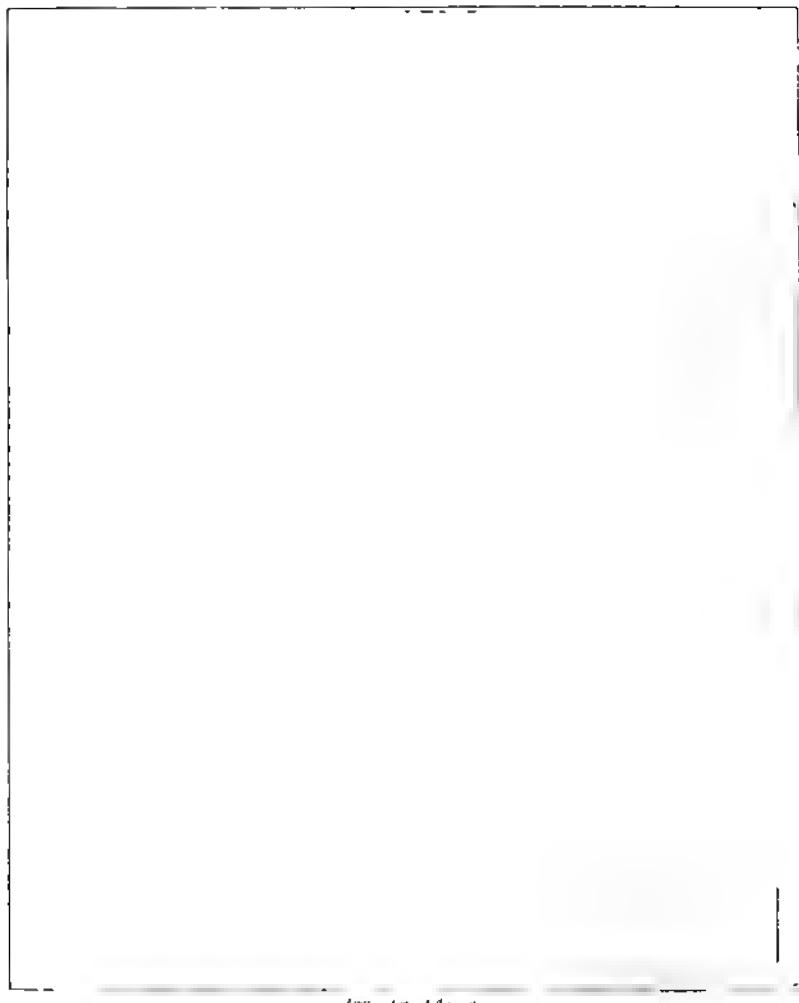
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GALLERY OF PORTRAITS.

WHILE the more northern nations of modern Europe began to cultivate a national and peculiar literature in their vernacular tongues, instead of using Latin as the only vehicle of written thought, it was some time before the popular language of Italy received that attention which might have been expected from the prevalence of free institutions, and the constant intercourse between neighbouring states speaking in similar dialects. At last the example of other countries prevailed, and a native poetry sprung up in Italy. If it be allowable to compare the progress of the national mind to the stages of life, the Italian Muse may be said to have been born in Sicily with Ciullo d'Alcamo in 1190; to have reached childhood in Lombardy with Guido Guinicelli, about 1220; and to have attained youth in Tuscany with Guido Cavalcanti, about 1280. But she suddenly started into perfect maturity when Dante appeared, surpassing all his predecessors in lyrical composition, and astounding the world with that mighty monument of Christian poetry, which after five centuries of progressive civilization still stands sublime as one of the most magnificent productions of genius.

Dante Alighieri, the true founder of Italian literature, was born at Florence A.D. 1265, of a family of some note. The name of Dante, by which he is generally known, often mistaken for that of his family, is a mere contraction of his Christian name Durante. Yet an infant when his father died, that heavy loss was lightened by the judicious solicitude with which his mother superintended his education. She entrusted him to the care of Brunetto Latini, a man of great repute as a poet as well as a philosopher; and he soon made so rapid a progress, both in science and literature, as might justify the most sanguine hopes of his future eminence.

Early as he developed the extraordinary powers of his understanding, he was not less precocious in evincing that susceptibility to deep and tender impressions, to which he afterwards owed his sublimest inspirations. But his passion was of a very mysterious character. It arose in his boyhood, for a girl "still in her infancy," and it never ceased, or lost its intensity, though she died in the flower of her age, and he survived her more than thirty years. Whether he was enamoured of a human being, or of a creature of his own imagination,—one of those phantoms of heavenly beauty and virtue so common to the dreams and reveries of youth,—it is extremely difficult to ascertain. Some of his biographers are of opinion that the lady whom he has celebrated in his works under the name of Bice, or Beatrice, was the daughter of Folco Portinari, a noble Florentine; while others contend that she is merely a personification of wisdom or moral philosophy. But Dante's own account of his love is given in terms often so enigmatical and apparently contradictory, that it is almost impossible to make them agree perfectly with either of these suppositions.

Whatever its object, his affection seems to have been most chaste and spiritual in its nature. Instead of alienating him from literary pursuits, it increased his thirst after knowledge, and ennobled and purified his feelings. With the aid of this powerful incentive, he soon distinguished himself above the youth of his native city, not only by his acquirements, but also by elegance of manners, and amenity of temper. Thus occupied by his studies, refined and exalted by his love, and cherished by his countrymen, the morning of his life was sunned by the unclouded smiles of fortune, as if to render darker by the contrast the long and gloomy evening which awaited him.

His pilgrimage on earth was cast in one of the most stormy periods recorded in history. The Church and the Empire had been long engaged in a scandalous contest, and had often involved a great part of Europe in their quarrels. Italy was especially distracted by

two contending parties, the Guelfs, who adhered to the Pope, and the Ghibelines, who espoused the cause of the Emperor. In the year 1266, after a long alternation of ruinous reverses and ferocious triumphs, the Guelfs of Florence drove the Ghibelines out of their city, and at last permanently established themselves in power. The family of Dante belonged to the victorious party; and while he remained in Florence, it would have been dangerous, perhaps impossible, to avoid mingling in these civil broils. He accordingly went out against the Ghibelines of Arezzo in 1289; and in the following year against those of Pisa. In the former campaign he took part in the battle of Campaldino, in which, after a long and doubtful conflict, the Aretines were completely defeated. On that memorable day he fought valiantly in the front line of the Guelf cavalry, manifesting the same energy in warfare, which he had displayed in his studies and in his love.

But soon after the tumults of the camp had interfered with the calm of his private and meditative life, his adored Beatrice, whether an earthly mistress, or an abstraction of his moral and literary studies, was torn from him. This loss, which in his writings he never ceases to lament, reduced him to extreme despondency. Nevertheless in 1291, but a few months after it, he married a lady of the noble family of the Donati, by whom he had a numerous offspring; a circumstance which would indicate a strange inconsistency of character, had his heart been really preoccupied by another love. This connection with one of the first families of the republic may have smoothed his way to civic eminence; but if Boccaccio, usually a slanderer of the fair sex, be credited, the lady's temper proved unfavourable to domestic comfort.

He now entirely devoted himself to the business of government, and attained such reputation as a statesman, that hardly any transaction of importance took place without his advice. It has even been asserted that he was employed in no less than fourteen embassies to foreign courts. There may be some exaggeration in this statement; but it is certain that in 1300, at the early age of five and thirty, he was elected one of the Priors, or chief magistrates of the republic; a mark of popular favour which ended in his total ruin.

About this time, the Guelfs of Florence split into two new divisions called Bianchi and Neri (whites and blacks), from the denominations of two factions which had originated at Pistoja, in consequence of a dispute between two branches of the Cancellieri family. The Bianchi were chiefly citizens recently risen to importance, who, having received no personal injury from the Ghibelines, were disposed

to treat them with moderation; while the Neri consisted almost entirely of ancient nobles, who, having formerly been the leaders of the Guelfs, still retained a furious animosity against the Ghibelines. All endeavours to bring them to a reconciliation proved useless: they soon passed from rancour to contumely, and from contumely to open violence. The city was now in the utmost confusion, and was very near being turned into a scene of war and carnage, when the Priors, hardly knowing what course to pursue, invoked the advice of Dante. His situation was most perplexing and critical. The relations of his wife were at the head of the Neri; while Guido Cavalcante, his dearest friend on earth, was one of the foremost leaders of the Bianchi. Nevertheless, silencing all the claims of private affection for the good of his country, he proposed to banish the principal agitators of both parties. By the adoption of this measure, public tranquillity was for a time restored. But Pope Boniface VIII. could not suffer independent citizens to govern the republic. He sent Charles de Valois to Florence under colour of pacifying the contending parties, but in truth to re-establish in power the men most blindly devoted to his own interests. The French prince, after having made the most solemn promises to the Florentine government, that he would act with rigorous impartiality and adopt only conciliatory measures, obtained admission into the city, at the beginning of November, 1301. Making no account of the engagements he had entered into, he now permitted the Neri to perpetrate the most atrocious outrages on the families of their opponents, and to close this scene of horror by pronouncing sentence of exile and confiscation upon six hundred of the most illustrious citizens. Dante was among the victims. He had made himself obnoxious, both to the Neri, whom he had caused to be banished, and to Charles de Valois, whose intrusion in the internal affairs of the commonwealth he had firmly opposed in council. Accordingly, his house was pillaged and razed, his property confiscated, and his life saved only by his absence at Rome, whither he had been sent for the purpose of propitiating the Pope. Highly disgusted at the treacherous conduct of Boniface, who had been deluding him all the while with vain hopes and honeyed words, he suddenly left Rome, and hastened to Siena. On his arrival he heard that he had been charged with embezzling the public money, and condemned to be burned, if he should fall into the hands of his enemies. His indignation now reached its height; and in despair of ever being restored to his native city except by arms, he repaired to Arezzo, and united his exertions to those of the other Bianchi, who, making common cause with the Ghibelines,

formed themselves into an army with the object of entering Florence by force. But their hopes were disappointed ; and after four years of abortive attempts they dispersed, each in pursuit of his own fortune.

The noble, opulent citizen, the statesman and minister, the profound philosopher, accustomed in all and each of these characters to the respectful homage of his countrymen, was now, to use his own words, "driven about by the cold wind that springs out of sad poverty," and compelled "to taste how bitter is another's bread, how hard it is to mount and to descend another's stairs." But the change from affluence to want was not the worst evil that awaited the high-minded patriot in banishment. For this he found compensation in the consciousness of having done his duty to his country. But he suffered much more from being mixed, and sometimes even confounded, with other exiles, whose perverse actions tended to disgrace the cause for which he had sacrificed all his private affections and interests. His misery was carried to the utmost by a continual struggle between his nice sense of honour and the pressure of want; by an excessive fear that his intentions might be misunderstood, and a constant readiness to mistake those of others. This morbid feeling he has pathetically expressed in several passages, which can scarce be read without profound emotion.

In this mental torture he wandered throughout Italy, from town to town, and from the palace of one of his benefactors to that of another, without ever finding a resting place for his wounded spirit. He stooped in vain to address letters of supplication to the Florentines; the rancour of his enemies was not to be softened by prayers. Meanwhile the hopes of the Ghibelines were again raised, when Henry VII., who had been elected Emperor in 1308, entered Italy to regain the rights of sovereignty which his predecessors had lost. Elated by the better prospects which appeared to open, Dante became a strenuous advocate of the imperial cause. He composed a treatise on monarchy, in which he asserted the rights of the empire against the encroachments of the Court of Rome: he wrote a circular both to the Kings and Princes of Italy, and to the Senators of Rome, admonishing them to give an honourable reception to their Sovereign; and he sent a hortatory epistle to the Emperor himself, urging him to turn his arms against Florence, and to visit that refractory city with severe punishment. Henry accordingly lay siege to Florence in September, 1312, but without success; and the hopes of the Ghibelines were finally extinguished in the following August, by his death, under strong suspicion of poison. Thus Dante, in consequence of his recent conduct, saw himself farther than ever from restoration to his beloved Florence. The unfor-

tunate exile, now reduced to despair, resumed his wanderings, often returning to Verona, where the Scaligeri family always received him at their court with peculiar kindness. It has been asserted that his thirst for knowledge led him to Paris and Oxford. His journey to England is still involved in doubt; but it appears certain, that he visited Paris, where he is said to have acquired great fame, by holding public disputations on several questions of theology.

On his return to Italy, he at length found a permanent refuge at Ravenna, at the court of Guido da Polenta, the father of that ill-fated Francesca da Rimini, for whom the celebrated episode of Dante has engrossed the sympathy of succeeding ages. The reception which he experienced from this Prince, who was a patron of learning and a poet, was marked by the reverence due to his character, no less than by the kindness excited by his misfortunes. In order to employ his diplomatic talents, and give him the pleasing consciousness of being useful to his host, Guido sent him as ambassador, to negotiate a peace with Venice. Dante, happy at having an opportunity of evincing his gratitude to his benefactor, proceeded on his mission with sanguine expectation of success. But being unable to obtain a public audience from the Venetians, he returned to Ravenna, so overwhelmed with fatigue and mortification, that he died shortly afterwards, in the fifty-seventh year of his age, A.D. 1321, receiving splendid obsequies from his disconsolate patron, who himself assumed the office of pronouncing a funeral oration on the dead body.

The portrait of Dante has been handed down to posterity, both by history and the arts. He is represented as a man of middle stature, with a pensive and melancholy expression of countenance. His face was long, his nose aquiline, his eyes rather prominent, but full of fire, his cheek bones large, and his under lip projecting beyond the upper one; his complexion was dark, his hair and beard thick and curled. These features were so marked, that all his likenesses, whether on medals, or marble, or canvas, bear a striking resemblance to each other. Boccaccio describes him as grave and sedate in his manners, courteous and civil in his address, and extremely temperate in his way of living; whilst Villani asserts, that he was harsh, reserved, and disdainful in his deportment. But the latter writer must have painted Dante such as he was in his exile, when the bitter cup of sorrow had changed the gravity of his temper into austerity. He spoke seldom, but displayed a remarkable subtleness in his answers. The consciousness of worth had inspired him with a noble pride which spurned vice in all its aspects, and despised condescending to anything like

flattery or dissimulation. Earnest in study, and attached to solitude, he was at times liable to fits of absence. The testimony of his contemporaries, and the still better evidence of his own works, prove that his hours of seclusion were heedfully employed. He was intimately conversant with several languages; extensively read in classical literature, and deeply versed in the staple learning of the age, scholastic theology, and the Aristotelian philosophy. He had acquired a considerable knowledge of geography, astronomy, and mathematics; had made himself thoroughly acquainted with mythology and history, both sacred and profane; nor had he neglected to adorn his mind with the more elegant accomplishments of the fine arts.

The mass of Dante's writings, considering the unfavourable circumstances under which he laboured, is almost as wonderful as the extent of his attainments. The treatise 'De Monarchia,' which he composed on the arrival of Henry VII. in Italy, is one of the most ingenious productions that ever appeared, in refutation of the temporal pretensions of the Court of Rome. It was hailed with triumphant joy by the Ghibelines, and loaded with vituperation by the Guelfs. The succeeding emperor, Lewis of Bavaria, laid great stress on its arguments as supporting his claims against John XXII.; and on that account, the Pope had it burnt publicly by the Cardinal du Pujet, his legate in Lombardy, who would even have disinterred and burnt Dante's body, and scattered his ashes to the wind, if some influential citizens had not interposed. Another Latin work, 'De Vulgari Eloquentia,' treats of the origin, history, and use of the genuine Italian tongue. It is full of interesting and curious research, and is still classed among the most judicious and philosophical works that Italy possesses on the subject. He meant to have comprised it in four books, but unfortunately only lived to complete two.

Of his Italian productions, the earliest was, perhaps, the 'Vita Nuova,' a mixture of mysterious poetry and prose, in which he gives a detailed account of his love for Beatrice. It is pervaded by a spirit of soft melancholy extremely touching; and it contains several passages having all the distinctness and individuality of truth; but, on the other hand, it is interspersed with visions and dreams, and metaphysical conceits, from which it receives all the appearance of an allegorical invention. He also composed about thirty sonnets, and nearly as many 'Canzoni,' or songs, both on love and morality. The sonnets, though not destitute of grace and ingenuity, are not distinguished by any particular excellence. The songs display a vigour of style, a sublimity of thought, a depth of feeling, and a richness of imagery not

known before : they betoken the poet and the philosopher. On fourteen of these, he attempted in his old age to write a minute commentary, to which he gave the title of ‘Convito,’ or Banquet, as being intended “to administer the food of wisdom to the ignorant;” but he could only extend it to three. Thus he produced the first specimen of severe Italian prose : and if he indulged rather too much in fanciful allegories and scholastic subtleties, these blemishes are amply counterbalanced by a store of erudition, an elevation of sentiment, and a matchless eloquence, which it is difficult not to admire.

These works, omitting several others of inferior value, would have been more than sufficient to place Dante above all his contemporaries ; yet, they stand at an immeasurable distance from the ‘Divina Commedia,’ the great poem by which he has recommended his name to the veneration of the remotest posterity. The Divine Comedy is the narrative of a mysterious journey through hell, purgatory, and paradise, which he supposes himself to have performed in the year 1300, during the passion week, having Virgil as his guide through the two regions of woe, and Beatrice through that of happiness. No creation of the human mind ever excelled this mighty vision in originality and vastness of design ; nor did any one ever choose a more appropriate subject for the expression of all his thoughts and feelings. The mechanical construction of his spiritual world allowed him room for developing his geographical and astronomical knowledge : the punishments and rewards allotted to the characters introduced, gave him an excellent opportunity for a display of his theological and philosophical learning : the continual succession of innumerable spirits of different ages, nations, and conditions, enabled him to expatiate in the fields of ancient and modern history, and to expose thoroughly the degradation of Italian society in his own times ; while the whole afforded him ample scope for a full exertion of his poetical endowments, and for the illustration of the moral lesson, which, whatever his real meaning may have been, is ostensibly the object of his poem. Neither were his powers of execution inferior to those of conception. Rising from the deepest abyss of torture and despair, through every degree of suffering and hope, up to the sublimest beatitude, he imparts the most vivid and intense dramatic interest to a wonderful variety of scenes which he brings before the reader. Awful, vehement, and terrific in hell, in proportion as he advances through purgatory and paradise, he contrives to modify his style in such a manner as to become more pleasing in his images, more easy in his expressions, more delicate in his sentiments, and more regular in his versification,

His characters live and move ; the objects which he depicts are clear and palpable ; his similes are generally new and just ; his reflections evince throughout the highest tone of morality ; his energetic language makes a deep and vigorous impression both on the reason and the imagination ; and the graphic force with which, by a few bold strokes, he throws before the eye of his reader a perfect and living picture, is wholly unequalled.

It is true, however, that his constant solicitude for conciseness and effect led him, sometimes, into a harsh and barbarous phraseology, and into the most unrestrained innovations ; but considering the rudeness of his age, and the unformed state of his language, he seems hardly open to the censure of a candid critic on this account. On the other hand, it is impossible not to wonder how, in spite of such obstacles, he could so happily express all the wild conceptions of his fancy, the most abstract theories of philosophy, and the most profound mysteries of religion. The occasional obscurity and coldness of the Divine Comedy proceeds much less from defects of style, than from didactic disquisitions and historical allusions which become every day less intelligible and less interesting. To be understood and appreciated as a whole, and in its parts, it requires a store of antiquated knowledge which is now of little use. Even at the period of its publication, when its geography and astronomy were not yet exploded, its philosophy and theology still current, and many of its incidents and personages still fresh in the memory of thousands, it was considered rather as a treasure of moral wisdom, than as a book of amusement. The city of Florence, and several other towns of Italy, soon established professorships for the express purpose of explaining it to the public. Two sons of Dante wrote commentaries for its illustration : Boccaccio, Benvenuto da Imola, and many others followed the example in rapid succession ; and even a few years since Foscolo and Rossetti excited fresh curiosity and interest by the novelty of their views. Notwithstanding the learning and ingenuity of all its expositors, the hidden meaning of the 'Divina Commedia' is not yet perfectly made out, though Rossetti, in his 'Spirito Antipapale,' lately published, seems to have shown, that under the exterior of moral precepts, it contains a most bitter satire against the court of Rome. But whether time shall remove these obscurities, or thicken the mist which hangs around this extraordinary production, it will be ever memorable as the mighty work which gave being and form to the beautiful language of Italy, impressed a new character on the poetry of modern Europe, and inspired the genius of Michael Angelo and of Milton,

There is no life of Dante which can be recommended as decidedly superior to the rest. The earliest is that of Boccaccio; but it evidently cannot be relied on for the facts of his life. There are others by Lionardo, Aretino, Fabroni, Pelli, Tiraboschi, &c. The English reader will find a fuller account prefixed to Mr. Carey's translation of the 'Divina Commedia,' and in Mr. Stebbing's Lives of the Italian Poets.





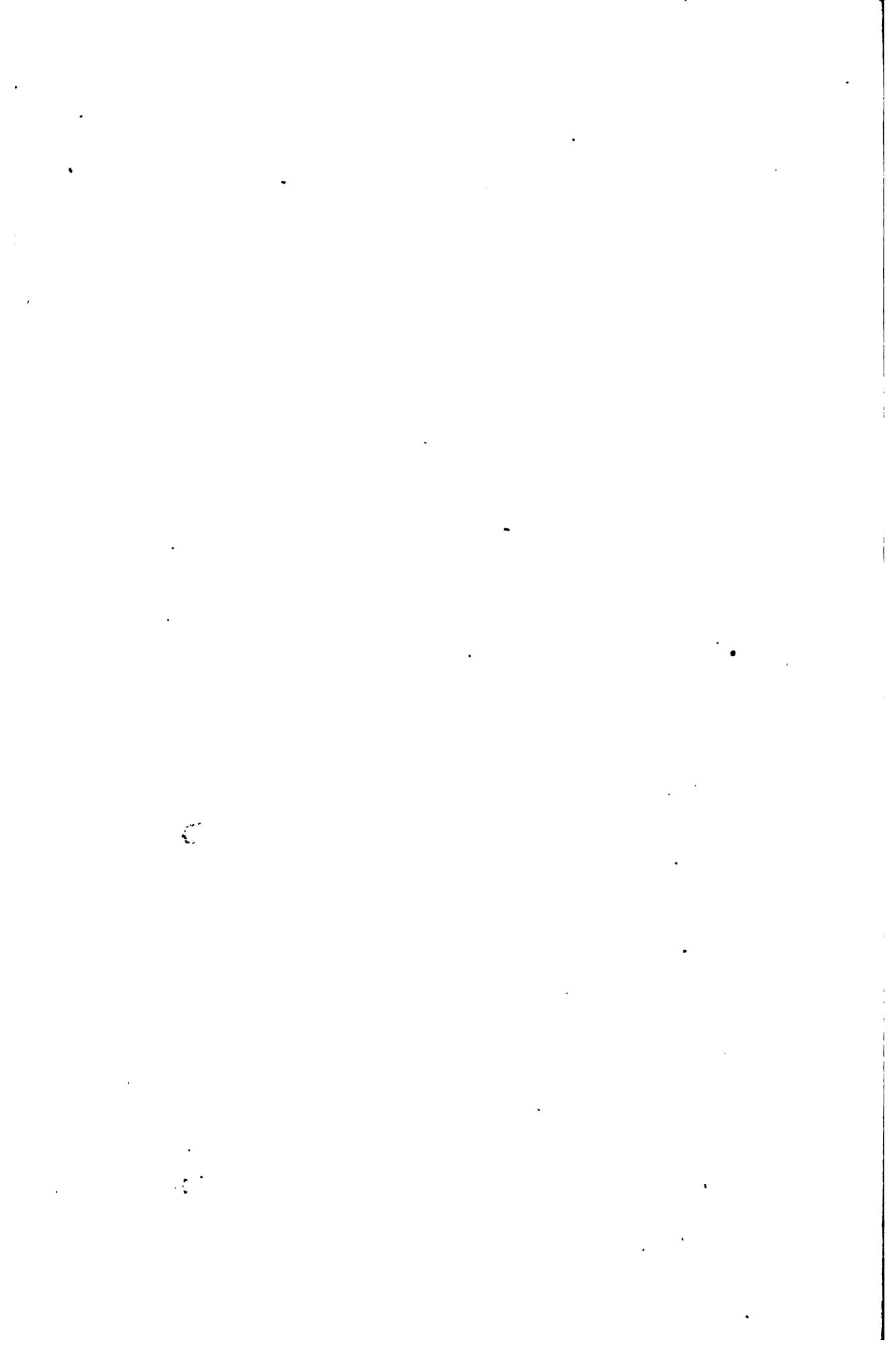
Journal of Oral Rehabilitation 2000; 27: 1029-1033

政治小説の歴史

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in his opinion I'm right now

Fig. 1. A schematic view of the sample for the influence of the boundary.





WHERE the length of the memoir necessarily bears a small proportion to the quantity of matter which presses on the biographer's attention, two courses lie open to his choice; either to select a few remarkable passages in his subject's life for full discussion, or to give a general and popular sketch of his personal history. The latter plan seems here the more advisable. To many readers a minute analysis of Davy's physical researches would be unintelligible, without full explanations of the very instruments and objects with, and upon which, he worked. We shall therefore make it our chief object to trace his private history, interspersing notices of his labours and discoveries, but leaving to publications of expressly scientific character the task of doing justice to his scientific fame. Both departments have been fully treated in the Life published by Dr. Paris.

Humphry Davy was born near Penzance in Cornwall, December 17, 1778, of a family in independent, though humble circumstances, which for a century and a half had possessed and resided upon a small estate situated in Mount's Bay. Though no prodigy of precocious intellect, his childhood gave reasonable promise of future talent; and especially manifested the dawning of a vivid imagination, united with a strong turn for experiments in natural philosophy. One of his favourite amusements was to exhibit to his playfellows the operation of melting in a candle scraps of tin; or to make and explode detonating balls. Another was the inventing and repeating to them fairy tales and romances. At times, however, he would exercise his eloquence upon graver subjects; and, when no better could be obtained, the future lecturer is said to have found a staid, if not attentive, audience in a circle of chairs. At an early age he was placed at school at Penzance, where, in the usual acceptation of the words, he

profited little : his own opinion, however, was different. "I consider it fortunate," he wrote to a member of his family, "that I was left much to myself as a child, and put upon no particular plan of study, and that I enjoyed much idleness at Mr. Coryton's school. I perhaps owe to these circumstances the little talents that I have, and their peculiar application: what I am, I have made myself. I say this without vanity, and in pure simplicity of heart." He was soon removed to the school at Truro, where he remained two years, undistinguished except by a love of poetry, which manifested itself in composition at an early age. This, indeed, continued to be a favourite amusement, until, in mature life, he became absorbed in scientific pursuits: and it has been said upon high authority, that if Davy had not been the first chemist, he would have been the first poet of his age. This opinion must look for support, not to his metrical productions, which in truth nowise justify it, but to the vivid imagination and high powers of eloquence, which, in the vigour and freshness of youth, delighted the fashionable, as much as his discoveries amazed the scientific world.

In 1794 his father died, and his mother in consequence removed from Varfell, the patrimonial estate, to Penzance, where Davy was apprenticed to Mr. Borlase, a surgeon in that town. For the medical part of his new profession he showed distaste; but his attention was at once turned to the study of chemistry, which he pursued thenceforward with undeviating zeal. Akin to this pursuit, and fostered by the natural features of his native county, was his early taste for geology. "How often," said Davy to his friend and biographer on being shown a drawing of Botallack mine,—"how often when a boy have I wandered about these rocks in search of new minerals, and when fatigued, sat down upon the turf, and exercised my fancy in anticipations of scientific renown." The notoriety which, in a small town, he readily acquired as the boy who was "so fond of chemical experiments," introduced him to a valuable friend, Mr. Davies Gilbert, in early life his patron, in mature age his successor in the chair of the Royal Society. By him the young man was introduced to Dr. Beddoes, who was at that time seeking an assistant in conducting the Pneumatic Institution, then newly established at Bristol, for the purpose of investigating the properties of aeriform fluids, and the possibility of using them as medical agents. It was not intended that, in forming this engagement, Davy should give up the line of life marked out for him; on the contrary, his abode at Bristol was considered part of his professional education. But his genius led him another way; and this lucky engagement opened a career of usefulness and fame,

which under other circumstances might have been long delayed. The arrangement was concluded upon liberal terms, and in October, 1798, before he was twenty years old, he left his home in high spirits to enter upon independent life. It is to his honour, that as soon as a competent, though temporary provision was thus secured, he resigned, in favour of his mother and sisters, all his claims upon the paternal estate.

Soon after removing to Bristol, he published, in a work entitled 'Contributions to Medical and Physical Knowledge,' edited by Dr. Beddoes, some essays on heat, light, and respiration. Of these it will be sufficient to say, that with much promise of future excellence, they show a most unbridled imagination, and contain many speculations so unfounded and absurd, that in after-life he bitterly regretted their publication. During his engagement, his zeal and intrepidity were signally displayed in attempts to breathe different gases, supposed, or known, to be highly destructive to life, with a view to ascertain the nature of their effects. Two of these experiments, the inhaling of nitrous gas and carburetted hydrogen are remarkable, because in each he narrowly escaped death. But his attention was especially turned to the gas called nitrous oxide, which, upon respiration, appeared to transport the breather into a new and highly pleasurable state of feeling, to rouse the imagination, and give new vigour to the most sublime emotions of the soul. The effects produced, exaggerated by the enthusiasm of the patients, were in fact closely analogous to intoxication; and many persons still remember the curiosity and amusement, excited by the freaks of poets and grave philosophers, while under the operation of this novel stimulus. In 1800 he published 'Researches Chemical and Philosophical, respecting Nitrous Oxide and its Respiration.' The novelty of the results announced, combined with the ability shown in their investigation, and the youth of the author, produced a great sensation in philosophical circles; and through the celebrity thus acquired, and the favourable opinion of him formed upon personal acquaintance by several eminent philosophers of the day, he was offered by the conductors of the Royal Institution, the office of Assistant Lecturer in Chemistry, with the understanding that ere long he should be made sole Professor. This negotiation took place in the spring of 1801, and on May 31, 1802, he was raised to the higher appointment.

To Davy, the quitting Bristol for London was the epoch of a transformation—an elevation from the chrysalis to the butterfly state. In youth his person, voice, and address were alike uncouth; and at first sight they produced so unfavourable an impression upon Count Rum-

ford, that he expressed much regret at having sanctioned so unpromising an engagement. The veteran philosopher soon found reason to change his opinion. Davy's first course of lectures, which was not delivered till the spring of 1802, excited a sensation unequalled before or since. Not only the philosophical but the literary and fashionable world crowded to hear him; and his vivid imagination, fired by enthusiastic love for the science which he professed, gave, to one of the most abstruse of studies, a charm confessed by persons the least likely to feel its influence. The strongest possible testimony to his richness of illustration is supplied by Mr. Coleridge:—"I go," he said, "to Davy's lectures to increase my stock of metaphors." Had this been all, the young prodigy would soon have ceased to dazzle; but his fame was maintained and increased by the success which waited on his undertakings; and, in a word, Davy became the lion of the day. The effect of this sudden change was by no means good. Sought and caressed by the highest circles of the metropolis, he endeavoured to assume the deportment of a man of fashion; but the strange dress sat awkwardly, and ill replaced a natural candour and warmth of feeling, which had singularly won upon the acquaintance of his early life. It is but justice, however, to add that his regard for his family and early friends was not cooled by this alteration in his society and prospects.

Our limits are too narrow to admit even a sketch of the various trains of original investigation pursued by Davy, during his connection with the Institution. Of these, the most important is that series of electrical inquiries pursued from 1800 to 1806, the results of which were developed in his celebrated first Bakerian Lecture, delivered in the autumn of the latter year, before the Royal Society, which received from the French Institute the prize of 3000 francs, established by the First Consul, for the best experiment in electricity or galvanism. In it he investigated the nature of electric action, and disclosed a new class of phenomena illustrative of the power of the Voltaic battery in decomposing bodies; which, in the following year, led to the most striking of his discoveries, the resolution of the fixed alkalies, potash and soda, into metallic bases. This discovery took place in October, 1807, and was published in his second Bakerian Lecture, delivered in the following November. The novelty and brilliancy of the view thus opened, raised public curiosity to the highest pitch: the laboratory of the Institution was crowded with visitors, and the high excitement thus produced, acting upon a frame exhausted by fatigue, produced a violent fever, in which for many days, he lay between life and death. Not until the following March was he able to resume his duties as a lecturer.

During the next four years he was chiefly employed in endeavouring to decompose other bodies, in prosecuting his inquiries into the nature of the alkalies and in obtaining similar metallic bases from the earths, in which he partially succeeded. The resolution of nitrogen was attempted without success. In tracing the nature of muriatic and oxy-muriatic acid, he was more fortunate; and proved the latter to be an undecomposed substance, in direct opposition to his own opinion, recorded at an earlier period. This discovery is the more honourable, for nothing renders the admission of truth so difficult, as having advocated error.

On the 8th April, 1812, he received the honour of knighthood from the Prince Regent, in testimony of his scientific merits. This was the more welcome, because he was on the eve of exchanging a life of professional labour for one, not of idleness, for he pursued his course of discovery with unabated zeal, but of affluence and independence. On the 11th of the same month, he married Mrs. Apreece, a lady possessed of ample fortune; previous to which he delivered his farewell lecture to the Royal Institution. At the same time he appears to have resigned the office of Secretary to the Royal Society, to which he had been appointed in 1807. Two months afterwards he published 'Elements of Chemical Philosophy,' which he dedicated to Lady Davy, "as a pledge that he should continue to pursue science with unabated ardour." In March, 1813, appeared the 'Elements of Agricultural Chemistry,' containing the substance of a course of lectures delivered for ten successive seasons before the Board of Agriculture.

That part of the Continent which was under French influence, being strictly closed against the English at this time, it is much to the credit of Napoleon, that he immediately assented to a wish expressed by Davy, and seconded by the Imperial Institute, that he might be allowed to visit the extinct volcanoes in Auvergne, and thence proceed to make observations on Vesuvius while in a state of action. He reached Paris, Oct. 27th, 1813. The French philosophers received him with enthusiasm: it is to be regretted that at the time of his departure their feelings were much less cordial. There was a coldness, and pride, or what seemed pride, in his manner, which disgusted a body of men too justly sensible of their own merit to brook slights; especially when, in spite of national jealousy, they had done most cordial and unhesitating justice to the transcendent achievements of the British philosopher. Nor was this the only ground for dissatisfaction. Iodine had been recently discovered in Paris, but its nature was still unknown. Davy obtained a portion, and proceeded to experiment upon it. This was thought by many an unfair interference with the fame

and rights of the original investigators. Davy himself felt that some explanation at least was due, in a paper which he transmitted to the Royal Society ; and as the passage in question contained what, though perhaps not meant to be such, might easily be construed into an insinuation, that but for him, the results communicated in that paper might not have been obtained, it was not likely to conciliate. There is probably much truth in the excuse offered by his biographer, for the superciliousness charged against him upon this, and other occasions, that it was merely the cloak of a perpetual and painful timidity.

It is remarkable that, with a highly poetical temperament, he seems to have been senseless to the beauties of art. The wonders of the Louvre extracted no sign of pleasure : he paced the rooms with hurried steps, in apathy, roused only by the sight of an Antinous sculptured in alabaster, "Gracious Heaven !" he then exclaimed, "what a beautiful stalactite."

From Paris, Dec. 29th, he proceeded without visiting Auvergne, to Montpellier, Genoa, Florence, Rome, and Naples, which he reached May 8th, 1814. At various places he prosecuted his researches upon iodine ; and at Florence, he availed himself of the great burning lens to experiment upon the combustion of the diamond, and other forms of carbon. At Naples and Rome he instituted a minute and laborious inquiry into the colours used in painting by the ancients ; the results of which appeared in the Philosophical Transactions for 1815.

The autumn of 1815 is rendered memorable by the discovery of the safety-lamp, one of the most beneficial applications of science to economical purposes yet made, by which hundreds, perhaps thousands, of lives have been preserved. Davy was led to the consideration of this subject by an application from Dr. Gray, now Bishop of Bristol, the Chairman of a Society established in 1813, at Bishop-Wearmouth, to consider and promote the means of preventing accidents by fire in coal-pits. Being then in Scotland, he visited the mines on his return southward, and was supplied with specimens of fire-damp, which, on reaching London, he proceeded to examine. He soon discovered that the carburetted hydrogen gas, called fire-damp by the miners, would not explode when mixed with less than six, or more than fourteen times its volume of air ; and further, that the explosive mixture could not be fired in tubes of small diameters and proportionate lengths. Gradually diminishing their dimensions, he arrived at the conclusion that a tissue of wire, in which the meshes do not exceed a certain small diameter, which may be considered as the ultimate limit of a series of such tubes, is impervious to the inflamed air ; and that a lamp covered with such tissue, may be used with perfect safety even

in an explosive mixture, which takes fire, and burns within the cage, securely cut off from the power of doing harm. Thus when the atmosphere is so impure that the flame of the lamp itself cannot be maintained, the *Davy* still supplies light to the miner, and turns his worst enemy into an obedient servant. This invention, the certain source of large profit, he presented with characteristic liberality to the public. The words are preserved, in which when pressed to secure to himself the benefit of it by a patent, he declined to do so, in conformity with the high-minded resolution which he formed upon acquiring independent wealth, of never making his scientific eminence subservient to gain:—"I have enough for all my views and purposes, more wealth might be troublesome, and distract my attention from those pursuits in which I delight. More wealth could not increase my fame or happiness. It might undoubtedly enable me to put four horses to my carriage, but what would it avail me to have it said, that Sir Humphry drives his carriage and four?" He who used wealth and distinction to such good purpose, may be forgiven the weakness if he estimated them at too high a value.

The coal-owners of the north presented to him a service of plate, in testimony of their gratitude. He underwent, however, considerable vexation from claims to priority of invention, set up by some persons connected with the collieries, whose attention had been turned with very imperfect success to the same end. The controversy has long been settled in his favour, by the decision of the most eminent names in British science, and the general voice of the owners of the Newcastle coal-field: and while the pits are worked, the name of *Davy*, given by the colliers to the safety-lamp, cannot be forgotten.

In 1818 he again visited Naples, with a view of applying the resources of chemistry to facilitate the unrolling of the papyri found in Herculaneum. These, it is well known, are generally in a state resembling charcoal, often cemented into a solid mass, and the texture so entirely destroyed, that it is hardly possible to separate the layers. Examination of some specimens transmitted to England satisfied him that they had not been subjected to heat, and that instead of being a true charcoal, they were analogous to peat or to the lignite called Bovey coal. He concluded, therefore, that the rolls were cemented into one mass by a substance produced by fermentation in their vegetable substance, and hoped to be able so far to destroy this, as to facilitate the detaching one layer from another, without obliterating the writing. With this view he submitted fragments to the operation of chlorine and iodine, with such fair hope of success, that he was encouraged to

proceed to Naples; the Government furnishing him with every recommendation, and defraying the expenses of such assistants as he thought it necessary to take out. His success, however, fell short of his hopes; and partly from disappointment, partly from a belief that unfair obstacles were thrown in his way by interested persons, he abandoned the undertaking at the end of two months, having partially unrolled twenty-three MSS. and examined about one hundred and twenty, which offered no prospect of success. His visit to Naples led, however, to one conclusion of interest to geologists, that the strata which cover Herculaneum are not lava, but a tufa consolidated by moisture, and resembling that at Pompeii except in its hardness.

In October, 1818, Sir Humphry Davy was created a baronet, as a reward for his scientific services. Soon after his return to England in 1820, died Sir Joseph Banks, the venerable president of the Royal Society. Davy succeeded to the chair, which he retained till forced to quit it by ill health, zealous in fulfilling its duties, without relaxing in his private labours. It would have been better had he not obtained this honour. His scientific pride disgusted some; his aristocratic airs, unpardonable in one so humbly born, excited the ridicule of others. Much of this weakness may be traced to the pernicious effects of early flattery. Had he been content with chemical fame, he would have spared some mortifications and heart-burnings both to himself and others. His demeanour changed, immediately after the delivery of his first lecture. On the following day he dined with his early friend and patron, Sir Henry Englefield, who, speaking of his behaviour on that day after eighteen years had elapsed, said, "It was the last effort of expiring nature." Such frailties, though just grounds of censure and regret to his contemporaries, will be lost in the splendour of his discoveries. Yet is the observation of them not useless as a warning to others: for the higher the station, the more closely will the actions of him who fills it be scrutinised, especially if his elevation be the work of his own hands.

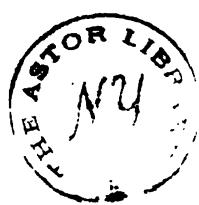
In 1823 he undertook, in consequence of an application from Government to the Royal Society, an inquiry into the possibility of preventing the rapid decay of the copper sheathing of ships. His former Voltaic discoveries at once explained the cause and suggested a remedy. When two metals in contact with each other are exposed to moisture, the more oxidable rapidly decays, while on the less oxidable no effect is produced. Thus a very small piece of iron or zinc was found effectually to stop the solution of a very large surface of copper. Several ships were accordingly fitted with *protectors*, as they were

called, which succeeded perfectly in preserving the copper; but their use was found to be attended by an evil greater than that which they remedied. The ships' bottoms grew foul with unexampled rapidity; and the protectors were finally abandoned by the Admiralty in 1828. This failure was a source of much ill-natured remark to the many whom Davy had offended, or who were jealous of his reputation, and of deep mortification to himself. Indeed he displayed an impatience of censure, and irritability of temper, far from dignified: the spoilt child of fortune, he could not bear the feeling of defeat, still less the triumph of his enemies. This weakness may perhaps be partly ascribed to declining health, which must always more or less over-cloud the mind, especially of one whose amusements as well as his employments were of an active and stirring kind. To the sports of fly-fishing and shooting he was devotedly attached; and jealous, even to a ludicrous degree, of his reputation and success, which is said not always to have been so great as he would willingly have had it believed. But his failing health gradually curtailed his enjoyment of these pleasures, and towards the end of 1825, the indisposition which his friends had long seen stealing on him reached its crisis in the form of an apoplectic attack. All immediate cause of alarm was soon removed; but the traces of his illness remained in a slight degree of paralysis, which impaired, though without materially affecting, his muscular powers. By the advice of his physicians he hastened abroad, and passed the rest of the winter, and the spring, at Ravenna. In the summer he visited the Tyrol and Illyria, and finding his health still precarious, resigned the chair of the Royal Society. In the autumn he returned to England, having gained little strength. The early winter he spent in Somersetshire, at the house of an old and valued friend, too weak for severe mental exertion, or to pursue successfully his favourite sports. Yet the ruling passion was still shewn in the amusement of his sick hours, which were chiefly devoted to the preparation of 'Salmonia.' Of the merits of this book as a manual for the fly-fisher, we presume not to speak. To the general reader it may be safely recommended, as containing many eloquent and poetical passages, with much amusing information respecting the varieties and habits of the trout and salmon species, and of the insect tribes on which they feed.

In the spring of 1828, Davy once more sought the Continent in search of health. His steps were turned to that favourite district, of which he speaks as the "most glorious country in Europe, Illyria and Styria;" where he solaced the weary hours of sickness, by such field-sports as his failing health enabled him to pursue, in the revision of an

improved edition of 'Salmonia,' and in the composition of the 'Last Days of a Philosopher.' Of this he says, in a letter dated Rome, February 6, 1829, "I write and philosophize a good deal, and have nearly finished a work with a higher aim than 'Salmonia.' It contains the essence of my philosophical opinions, and some of my poetical reveries." Under this sanction, the reader will peruse with pleasure the sketch contained in the third dialogue of a geological history of the earth, and the other questions of natural philosophy which are discussed. A large portion of the work is occupied by metaphysical and religious disquisitions. As a moral philosopher, his opinions do not seem entitled to peculiar weight. Of his visionary excursion to the limits of the solar system, it is not fair to speak but as the play of an exuberant imagination, mastering the sober faculties of the mind.] The work contains many passages, reflective and descriptive, of unusual beauty; and is a remarkable production to have been composed under the wasting influence of that disease, which, of all others, usually exerts the most benumbing influence.

The winter of 1828-9, he spent at Rome; with returning spring, he expressed a wish to visit Geneva, but his hours were numbered. He reached that city on May 28, unusually cheerful; dined heartily on fish, and desired to be daily supplied with every variety which the lake afforded: a trifling circumstance, yet interesting from its connection with his love of sport. In the course of the night he was seized with a fresh attack, and expired early in the morning without a struggle. His remains were honoured by the magistrates with a public funeral, and repose in the cemetery of Plain Palais. He died without issue, and the baronetcy is in consequence extinct.



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AMONG the remarkable men of modern times, there is perhaps none, whose fame is purer from reproach, than that of Thaddeus Kosciusko. His name is enshrined in the ruins of his unhappy country, which, with heroic bravery and devotion, he sought to defend against foreign oppression, and foreign domination. Kosciusko was born at Warsaw, about the year 1755. He was educated at the school of Cadets, in that city, where he distinguished himself so much in scientific studies as well as in drawing, that he was selected as one of four students of that institution, who were sent to travel at the expense of the state, with a view of perfecting their talents. In this capacity he visited France, where he remained for several years, devoting himself to studies of various kinds. On his return to his own country, he entered the army, and obtained the command of a company. But he was soon obliged to expatriate himself again, in order to fly from a violent but unrequited passion, for the daughter of the Marshal of Lithuania, one of the first officers of state of the Polish court.

He bent his steps to that part of North America, which was then waging its war of independence against England. Here he entered the army, and served with distinction as one of the adjutants of General Washington. While thus employed, he became acquainted with La Fayette, Lameth, and other distinguished Frenchmen, serving in the same cause; and was honoured by receiving the most flattering praises from Franklin, as well as the public thanks of the congress of the United Provinces. He was also decorated with the new American order of Cincinnatus, being the only European, except La Fayette, to whom it was given.

At the termination of the war he returned to his own country, where he lived in retirement till the year 1789, at which period he was

promoted by the Diet, to the rank of Major-General. That body was at this time endeavouring to place its military force upon a respectable footing, in the vain hope of restraining and diminishing the domineering influence of foreign powers, in what still remained of Poland. It also occupied itself in changing the vicious constitution of that unfortunate and ill-governed country—in rendering the monarchy hereditary—in declaring universal toleration—and in preserving the privileges of the nobility, while at the same time it ameliorated the condition of the lower orders. In all these improvements, Stanislas Poniatowski, the reigning king, readily concurred; though the avowed intention of the Diet was, to render the crown hereditary in the Saxon family. The King of Prussia (Frederic William II.), who, from the time of the Treaty of Cherson in 1787, between Russia and Austria, had become hostile to the former power, also encouraged the Poles in their proceedings; and even gave them the most positive assurances of assisting them, in case the changes they were effecting occasioned any attacks from other sovereigns.

Russia at length, having made peace with the Turks, prepared to throw her sword into the scale. A formidable opposition to the measures of the Diet had arisen, even among the Poles themselves, and occasioned what was called the confederation of Targowiez, to which the Empress of Russia promised her assistance. The feeble Stanislas, who had proclaimed the new constitution, in 1791, bound himself in 1792 to sanction the Diet of Grodno, which restored the ancient constitution, with all its vices and all its abuses. In the meanwhile, Frederic William, King of Prussia, who had so mainly contributed to excite the Poles to their enterprises, basely deserted them, and refused to give them any assistance. On the contrary, he stood aloof from the contest, waiting for that share of the spoil, which the haughty Empress of the north might think proper to allot to him, as the reward of his non-interference.

But though thus betrayed on all sides, the Poles were not disposed to submit without a struggle. They flew to arms, and found in the nephew of their king, the Prince Joseph Poniatowski, a general worthy to conduct so glorious a cause. Under his command Kosciusko first became known in European warfare. He distinguished himself in the battle of Zielenec, and still more in that of Dubienska, which took place on the 18th of June, 1792. Upon this latter occasion, he defended for six hours, with only four thousand men, against fifteen thousand Russians, a post which had been slightly fortified in twenty-four hours, and at last retired with inconsiderable loss.

But the contest was too unequal to last; the patriots were over-

whelmed by enemies from without, and betrayed by traitors within, at the head of whom was their own sovereign. The Russians took possession of the country, and proceeded to appropriate those portions of Lithuania and Volhynia, which suited their convenience; while Prussia, the friendly Prussia, invaded another part of the kingdom.

Under these circumstances, the most distinguished officers in the Polish army retired from the service, and of this number was Kosciusko. Miserable at the fate of his unhappy country, and at the same time an object of suspicion to the ruling powers, he left his native land, and retired to Leipsic; where he received intelligence of the honour which had been conferred upon him by the Legislative Assembly of France, who had invested him with the quality of a French citizen.

But his fellow-countrymen were still anxious to make another struggle for independence; and they unanimously selected Kosciusko as their chief and generalissimo. He obeyed the call, and found the patriots eager to combat under his orders. Even the noble Joseph Poniatowski, who had previously commanded in chief, returned from France, whither he had retired, and received from the hands of Kosciusko the charge of a portion of his army.

The patriots had risen in the north of Poland, to which part Kosciusko first directed his steps. Anxious to begin his campaign with an action of vigour, he marched rapidly towards Cracow, which town he entered triumphantly on the 24th of March, 1794. He forthwith published a manifesto against the Russians; and then, at the head of only five thousand men, he marched to meet their army. He encountered, on the 4th of April, ten thousand Russians at a place called Wrackawic; and entirely defeated them, after a combat of four hours. He returned in triumph to Cracow, and shortly afterwards marched along the left bank of the Vistula to Polaniec, where he established his head quarters.

Meanwhile the inhabitants of Warsaw, animated by the recital of the heroic deeds of their countrymen, had also raised the standard of independence, and were successful in driving the Russians from the city, after a murderous conflict of three days. In Lithuania and Samogitia an equally successful revolution was effected, before the end of April; while the Polish troops stationed in Volhynia and Podolia, marched to the reinforcement of Kosciusko.

Thus far fortune seemed to smile upon the cause of Polish freedom—the scene was, however, about to change. The undaunted Kosciusko, having first organized a national council to conduct the affairs of government, again advanced against the Russians. On his

march, he met a new enemy, in the person of the faithless Frederic William of Prussia ; who, without having even gone through the preliminary of declaring war, had advanced into Poland, at the head of forty thousand men.

Kosciusko, with but thirteen thousand men, attacked the Prussian army on the 8th of June, at Szcekociny. The battle was long and bloody ; at length, overwhelmed with numbers, he was obliged to retreat towards Warsaw. This he effected in so able a manner, that his enemies did not dare to harass him in his march ; and he effectually covered the capital, and maintained his position for two months against vigorous and continued attacks. Immediately after this reverse the Polish General Zaionczeck lost the battle of Chelm, and the Governor of Cracow had the baseness to deliver the town to the Prussians, without attempting a defence.

These disasters occasioned disturbances among the disaffected at Warsaw, which, however, were put down by the vigour and firmness of Kosciusko. On the 13th of July, the forces of the Prussians and Russians, amounting to fifty thousand men, assembled under the walls of Warsaw, and commenced the siege of that city. After six weeks spent before the place, and a succession of bloody conflicts, the confederates were obliged to raise the siege ; but this respite to the Poles was but of short duration.

Their enemies increased fearfully in number, while their own resources diminished. Austria now determined to assist in the annihilation of Poland, and caused a body of her troops to enter that kingdom. Nearly at the same moment, the Russians ravaged Lithuania ; and the two corps of the Russian army, commanded by Suwarof and Fersen, effected their junction in spite of the battle of Krupezyce, which the Poles had ventured upon with doubtful issue, against the first of these commanders, on the 16th of September.

Upon receiving intelligence of these events, Kosciusko left Warsaw and placed himself at the head of the Polish army. He was attacked by the very superior forces of the confederates on the 10th of October, 1794, at a place called Macieiwice ; and for many hours supported the combat against overwhelming odds. At length he was severely wounded, and as he fell, he uttered the prophetic words, "*Finis Poloniae.*" It is asserted, that he had exacted from his followers an oath, not to suffer him to fall alive into the hands of the Russians, and that in consequence the Polish cavalry, being unable to carry him off, inflicted some severe sabre wounds on him, and left him for dead on the field ; a savage fidelity, which we half admire even in condemning it.

Be this as it may, he was recognized and delivered from the plunderers by some Cossack chiefs; and thus was saved from death to meet a scarcely less harsh fate—imprisonment in a Russian dungeon.

Thomas Wawrzecki became the successor of Kosciusko in the command of the army; but with the loss of their heroic leader, all hope had deserted the breasts of the Poles. They still, however, fought with all the obstinacy of despair, and defended the suburb of Warsaw, called Praga, with great gallantry. At length this post was wrested from them. Warsaw itself capitulated on the 9th of November, 1794; and this calamity was followed by the entire dissolution of the Polish army on the 18th of the same month.

During this time, Kosciusko remained in prison at Petersburgh; but, at the end of two years, the death of his persecutress the Empress Catherine released him. One of the first acts of the Emperor Paul was to restore him to his liberty, and to load him with various marks of his favour. Among other gifts of the autocrat was a pension, by which, however, the high-spirited patriot would never consent to profit. No sooner was he beyond the reach of Russian influence than he returned to the donor the instrument, by which this humiliating favour was conferred. From this period the life of Kosciusko was passed in retirement. He went first to England, and then to the United States of America. He returned to the Old World in 1798, and took up his abode in France, where he divided his time between Paris, and a country house he had bought near Fontainebleau. While here he received the appropriate present of the sword of John Sobieski, which was sent to him by some of his countrymen serving in the French armies in Italy, who had found it in the shrine at Loretto.

Napoleon, when about to invade Poland in 1807, wished to use the name of Kosciusko, in order to rally the people of the country round his standard. The patriot, aware that no real freedom was to be hoped for under such auspices, at once refused to lend himself to his wishes. Upon this the Emperor forged Kosciusko's signature to an address to the Poles, which was distributed throughout the country. Nor would he permit the injured person to deny the authenticity of this act in any public manner. The real state of the case was, however, made known to many through the private representations of Kosciusko; but he was never able to publish a formal denial of the transaction till after the fall of Napoleon.

When the Russians in 1814 had penetrated into Champagne, and were advancing towards Paris, they were astonished to hear that their former adversary was living in retirement in that part of the country.

The circumstances of this discovery were striking. The commune in which Kosciusko lived was subjected to plunder, and among the troops thus engaged he observed a Polish regiment. Transported with anger he rushed among them, and thus addressed the officers : "When I commanded brave soldiers they never pillaged ; and I should have punished severely subalterns who allowed of disorders such as those which we see around. Still more severely should I have punished older officers, who authorized such conduct by their culpable neglect."—"And who are you," was the general cry, "that you dare to speak with such boldness to us?"—"I am Kosciusko." The effect was electric: the soldiery cast down their arms, prostrated themselves at his feet, and cast dust upon their heads according to a national usage, supplicating his forgiveness for the fault which they had committed. For twenty years the name of Kosciusko had not been heard in Poland save as that of an exile ; yet it still retained its ancient power over Polish hearts ; a power never used but for some good and generous end.

The Emperor Alexander honoured him with a long interview, and offered him an asylum in his own country. But nothing could induce Kosciusko again to see his unfortunate native land. In 1815, he retired to Soleure, in Switzerland ; where he died, October 16th, 1817, in consequence of an injury received by a fall from his horse. Not long before he had abolished slavery upon his Polish estate, and declared all his serfs entirely free, by a deed registered and executed with every formality that could ensure the full performance of his intention. The mortal remains of Kosciusko were removed to Poland at the expense of Alexander, and have found a fitting place of rest in the cathedral of Cracow, between those of his companion in arms, Joseph Poniatowski, and the greatest of Polish warriors, John Sobieski.



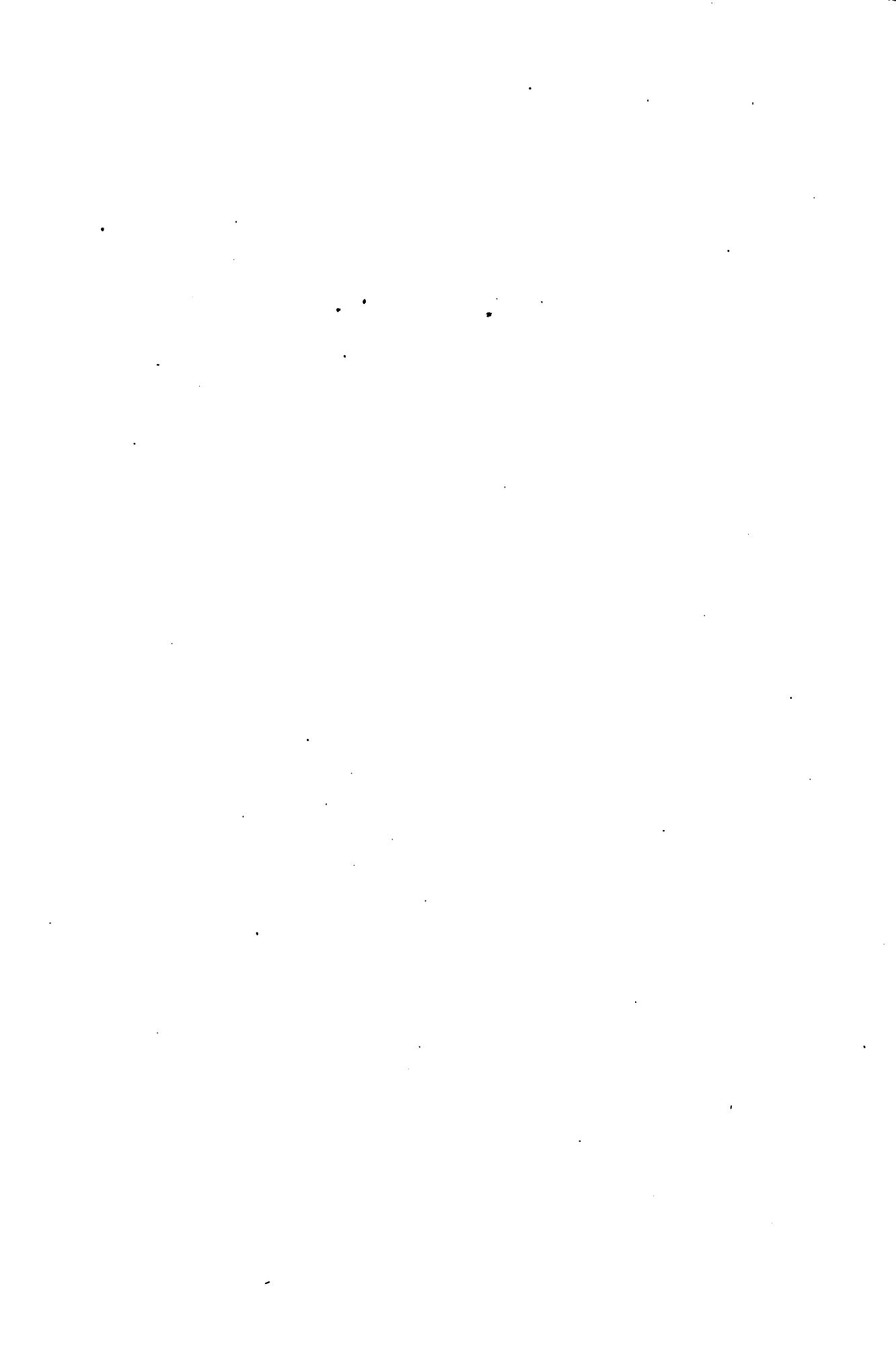
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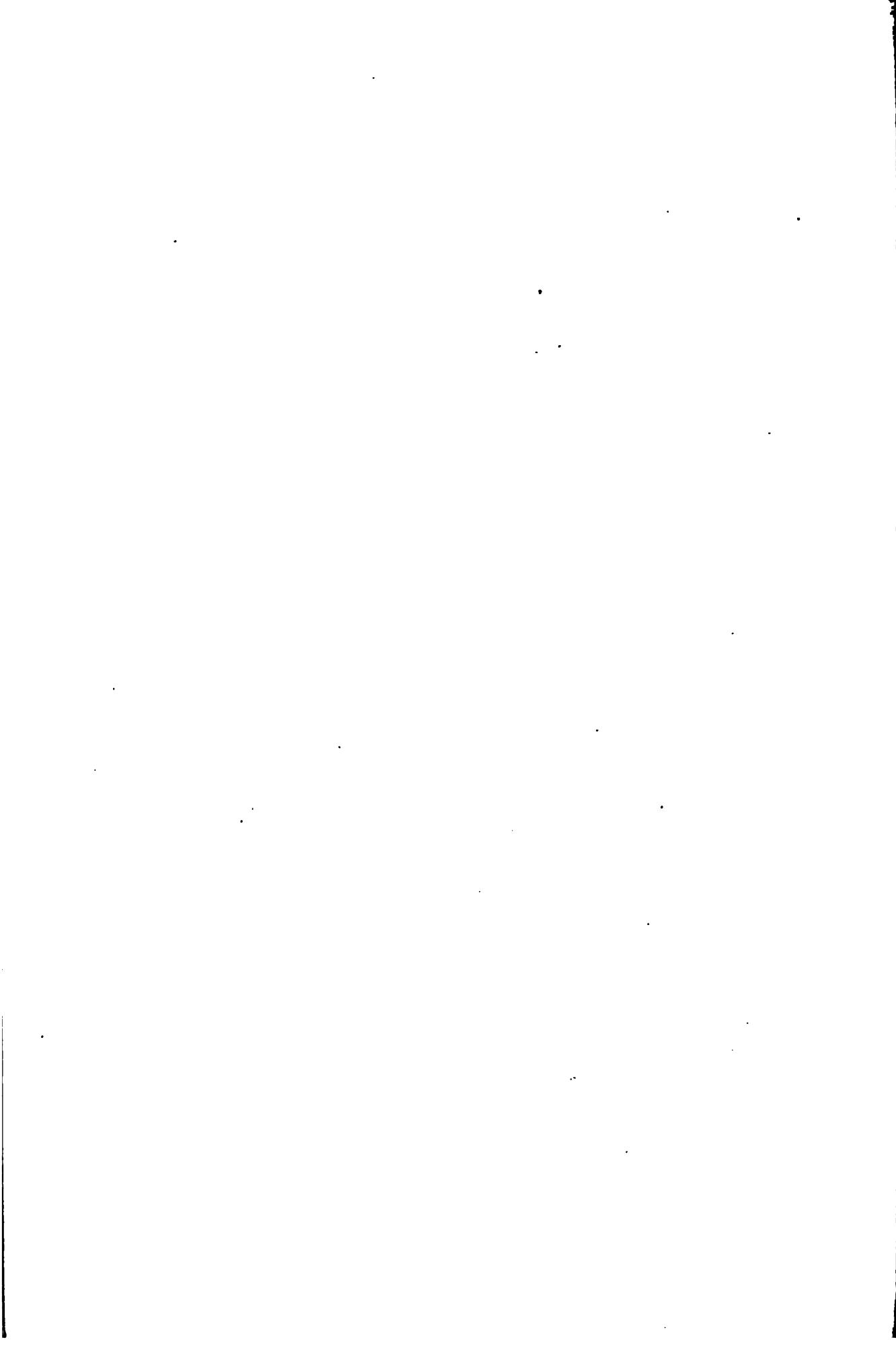
JOHN JACKSON

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IT was not till the time of Banks and Flaxman, that the English school had produced any notable specimens of the lofty and heroic style in sculpture. Wilton, Bacon, and Nollekens, were respectable in their line, which was nearly confined to allegorical monuments and busts. Roubiliac, though eminently unclassical, possessed a superior style of art, and has executed some works which for strength and liveliness of expression may challenge competition in this or any other country. But the attainments and genius of the two first-mentioned artists were of a different, and a loftier class. Those, however, who trace the history of the lives of Flaxman and Banks, will find, that whatever they achieved in the higher departments of sculpture was due solely to their ardent pursuit of excellence, almost unaided by that patronage, which, in this country, has been so liberally bestowed on other branches of the fine arts.

The heroic beauty and noble proportions of the Mourning Achilles, fully establish the claim of Banks to a high rank as a poetic sculptor; this fine work of art, however, remained for years in plaster during his life, and after his death was presented to the British Gallery, where it now stands in the hall, "as a warning," observes Mr. Allan Cunningham, "to all sculptors who enter, that works of classic fancy find slender encouragement here!" With respect to Flaxman, in an early period of his professional career, he executed the outline illustrations of Homer, Æschylus, and Dante, which at once established his fame; and yet, during a long life, no single patron called upon him to embody in marble any one of these lofty conceptions, the very existence of which forms the chief glory of the English school of poetic design.

The progress of sculpture in this country has been very recently traced by Mr. Allan Cunningham, in his amusing 'Memoirs of

British Sculptors.' Of these, the last, and most interesting, is that of Flaxman, from the spirited and amusing pages of which, together with the memoir prefixed to the Lectures on Sculpture, this short account has been chiefly extracted.

John Flaxman, the second son of a moulder of figures, who kept a shop in the Strand for the sale of plaster casts, was born in 1755. Like most who have been eminent as artists, he early manifested a taste for drawing. As soon as he could hold a pencil, he took delight in copying whatever he saw, and at an age when most children are engrossed with childish sports, he had read many books, and had begun to trace upon paper the lineaments and actions of those heroes who had engaged his fancy. Numerous stories are told of his fondness for that art to which his mature energies were devoted; and, allowing somewhat for the fond recollections of parents and friends, it is fully established that young Flaxman early showed proofs both of application and genius. To this development of his talents, his bodily constitution may have lent some aid, for his health from infancy was delicate, and a weak, and somewhat deformed frame, indisposed him from joining in the usual games of children.

His station in life did not enable him to profit by the common means of education; he gathered his knowledge from various sources, and mastered what he wanted by some of those ready methods which form part of the inspirations of genius. The introduction, through the means of an early patron, Mr. Mathew, to Mrs. Barbauld, contributed to improve his education and form his taste.

In his fifteenth year he became a student in the Royal Academy. Here he formed an intimacy with Blake and Stothard, both artists of original talent; but, like their more eminent companion, less favoured by fortune than many not so deserving of patronage and applause.

At the Academy, Flaxman obtained the silver medal, but in the contest for the gold one, he was worsted by Engleheart, a name now entirely forgotten. Flaxman, however, though humbled and mortified, was only stimulated by this defeat to greater exertions and more unwearied application.

The narrow circumstances of his father did not allow him to devote his whole time to unproductive study. His first employment was for the Wedgewoods; and to this fortunate combination of genius in the artist, and enterprise, skill, and taste in the manufacturers, the sudden and rapid improvement of the porcelain of this country is mainly to be ascribed. "The subjects executed by Flaxman were chiefly small

groups in very low relief, from subjects of ancient verse and history; many of which," observes Mr. A. Cunningham, "are equal in beauty and simplicity to his designs for marble: the Etruscan vases and the architectural ornaments of Greece supplied him with the finest shapes; these he embellished with his own inventions, and a taste for forms of elegance began to be diffused over the land. Flaxman loved to allude, even when his name was established, to these humble labours; and since his death, the original models have been eagerly sought after." A set of chessmen, also executed for the Wedgewoods, are exceedingly beautiful.

Whilst earning by his labour a decent subsistence, he continued his devotion to the pursuit of his art, making designs from the Greek poets, the Pilgrim's Progress, and the Bible. He exhibited various works at the Academy; but it does not appear that he was enabled by patronage to execute any of these in marble, and it is, perhaps, owing to the little practice that he had in early life in this mode of working, that his admitted want of excellence in this branch of the art of sculpture is to be attributed.

In 1782 he left his father's home, and married an amiable and accomplished woman, whose society and affection formed the chief happiness of his after life. All those who knew them, describe in glowing terms the harmony and mutual affection in which they lived. In 1787 he determined to visit Rome. Two monuments which he executed before his departure deserve notice. One is in memory of Collins. It represents the poet seated, reading what he told Dr. Johnson was his only book, 'THE BIBLE,' whilst his lyre and poetical compositions lie neglected on the ground. The second is erected in Gloucester cathedral, to Mrs. Morley, who perished with her child at sea, and is represented as rising with the infant from the waves, at the summons of angels. The simple and serene beauty of this work is admirably suited for monumental sculpture.

How he profited whilst at Rome by the study of those noble specimens of ancient art, to which modern artists resort as the best school of excellence, is shown in the outline illustrations of Homer, Æschylus, and Dante; works which spread his fame throughout Europe, and at once stamped the character of the English School of Design. These compositions, which have been the admiration of every nation where art is cultivated, which have been repeatedly published in Germany and Italy, as well as in England, and which have been commented on with unlimited praise by Schlegel, and almost every other modern writer on the fine arts, were made, the

Homeric series for fifteen shillings; those taken from *Æschylus* and *Dante*, for one guinea each. It is not creditable to English taste that this country does not possess a single group, or even bas-relief, executed from them, although the author lived for more than thirty years after their publication.

Of the illustrations of the *Iliad*, there are in all thirty-nine; of the *Odyssey*, thirty-four. Of the designs from *Dante*, thirty-eight are taken from the Hell, thirty-eight from the Purgatory, and thirty-three from the Paradise. The Homeric series was made for Mrs. Hare. The illustrations of *Æschylus* were undertaken at the desire of the Countess Spencer; and those of the *Divina Commedia* were executed for Mr. Thomas Hope, one of Flaxman's early patrons, for whom, whilst at Rome, he executed in marble a very beautiful small-sized group of Cephalus and Aurora.

Of these three series, the Homeric is the most popular. This preference may, perhaps, be accounted for by the Grecian poem being more generally familiar than that of *Dante*: yet the subject of the *Divina Commedia* in many respects appears to have been more congenial to the talents of the artist; and perhaps an impartial judgment will pronounce, that of all the works of Flaxman, the designs from *Dante* best exhibit his peculiar genius. During his stay at Rome he executed for Frederick, Earl of Bristol and Bishop of Derry, a group in marble, which consisted of four figures larger than life, representing the fury of Athamas, from Ovid's *Metamorphoses*: by this he lost money, the price agreed on being only six hundred guineas; a sum insufficient to cover the expenses of the work. The recollection of this piece of patronage was so disgusting, to use the word by which he himself once characterized it, that in after life he could not bear to talk on the subject.

Whilst in Italy he made numerous drawings and memoranda upon ancient art, which afterwards formed the groundwork of his lectures on sculpture. After an absence of seven years he returned to England, and engaged a house in Buckingham-street, in which he continued to reside till his death.

His first great work after his return was a monument to the Earl of Mansfield. In 1797 he was elected an associate, and in 1800, a member of the Royal Academy, to which he presented, on his admission, a marble group of Apollo and Marpessa. He visited for a short time, in 1802, the splendid collections of the Louvre, in order to revive his early recollection of the works of art which had been brought from Rome. In 1810, a professorship of sculpture having

been established by the Academy, he was elected to fill the chair, and his lectures were commenced in 1811. Those who had formed high expectations of eloquence, and of felicity of diction and illustration, were disappointed. The sedate gravity of his manner, his unimpassioned tone, and the somewhat dull catalogue of statues and works of art which he occasionally introduced, conduced to tire a general audience. But the ten lectures, which have been published since his death, must always furnish an important manual to every student in sculpture. The lectures on Beauty, and the contrast of Ancient and Modern Sculpture, are peculiarly interesting, and embody nearly all which can be said on the leading principles of art. In addition to these lectures he wrote several anonymous articles, which are enumerated by Mr. Cunningham. These were the 'Character of the Works of Romney,' for Hayley's life of that artist, and either the whole or part of the articles, Armour, Basso-relievo, Beauty, Bronze, Bust, Composition, Cast, Ceres, in Rees's Cyclopaedia. Many of the opinions put forth in these different essays he has embodied in his lectures.

Besides the designs already noticed, he executed numerous illustrations of the Pilgrim's Progress, forty designs for Sotheby's translation of Oberon, and thirty-six designs from Hesiod, illustrating the story of Pandora, and exhibiting the effects of her descent on earth. The subjects from Hesiod were those in which his poetic fancy appeared most to delight.

In 1820, Flaxman lost his wife, with whom he had lived in uninterrupted happiness for thirty-eight years, and from the effects of this bereavement he seemed never entirely to recover. A beloved sister, and the sister of her whom he most loved, remained to him, and continued his companions till his death.

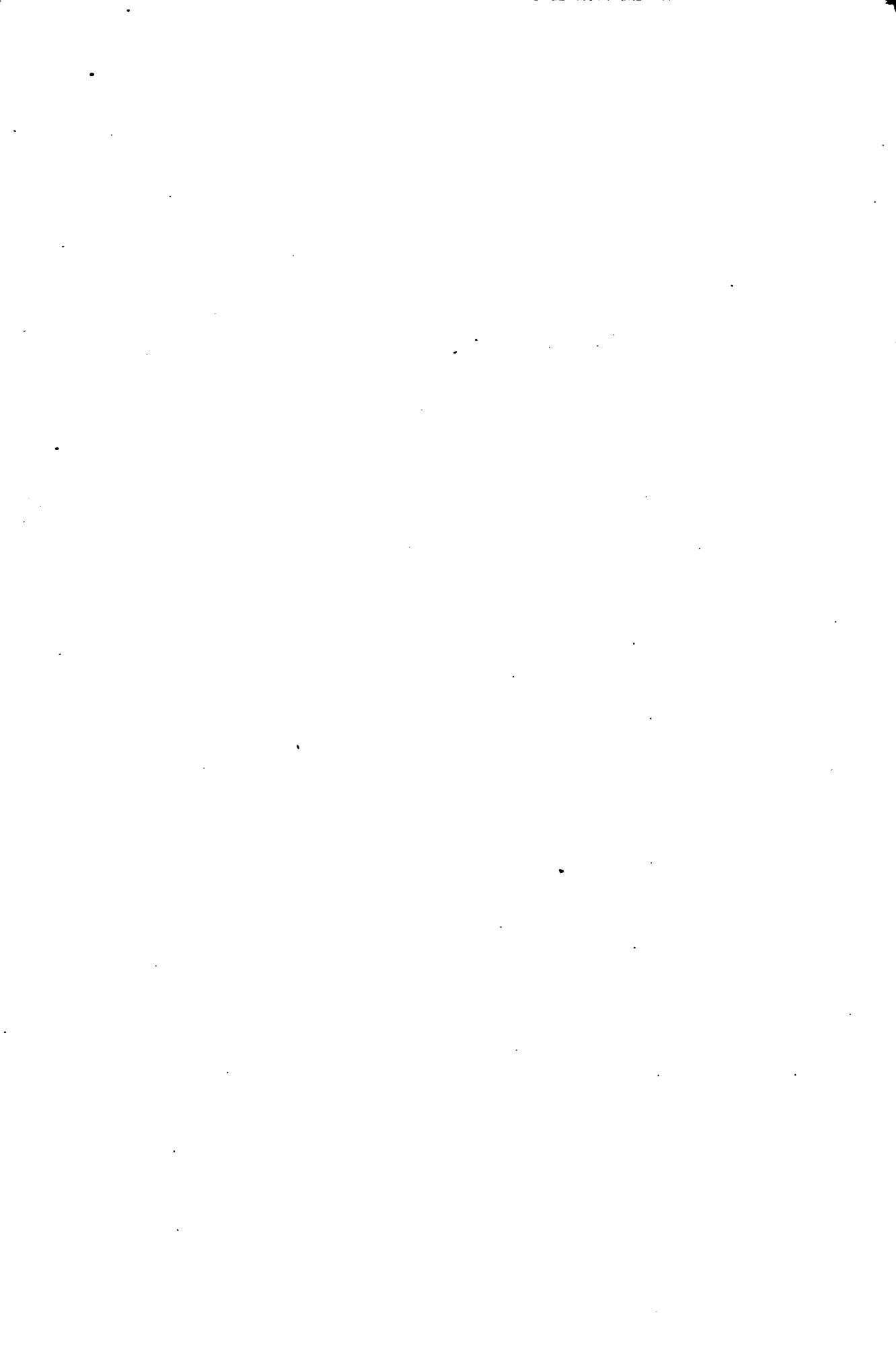
At the time of this domestic misfortune the artist was in the zenith of his fame. Commissions poured in, and among them, one order especially worthy of his talents, for a group of the Archangel Michael vanquishing Satan, given by the Earl of Egremont, a nobleman who has omitted no opportunity of patronising the fine arts in this country. This group exhibits more grandeur of conception than any work of art of modern times. Unfortunately the marble of which it was cut was much discoloured, and the work was not entirely finished at his death. Amongst the finest of Flaxman's later productions, Mr. Cunningham enumerates his Pysche, the pastoral Apollo (also in the possession of Lord Egremont), and two small statues of Michael Angelo and Raphael. But

THE illustrious discoverer of the true planetary motions, whose features are represented on the accompanying plate, lived during the latter part of the fifteenth century, and the first half of the following one. Notwithstanding the success and celebrity of the theory which still bears his name, the materials are very scanty for personal details regarding his life and character. This ignorance is not the result of recent neglect. A century had scarcely elapsed from the time of his death, when Gas-sendi, who, at the request of the poet Chapelain, undertook to compile an account of him, was forced to preface it by a similar declaration.

Whilst Europe rang from one end to the other with the fierce dispute to which the new views of the relation and motions of the heavenly bodies gave rise, the character, the situation and manner of life, almost the country, of the great author of the controversy, remained unknown to the greater number of his admirers and opponents. Even the name of the discoverer of the Copernican system now appears strange, except in the Latinised form of *Copernicus*, in which alone it occurs in his own writings and in those of his commentators.

Nicolas Cöpernik*, to use his genuine appellation, was a native of Thorn, a city of Polish Prussia, situated on the river Weichsel or Vistula. He was born in the year 1473. Little is known of his parents, except that his father, whose name also was Nicolas, was a surgeon, and, as it is believed, of German extraction. The elder Cöpernik was undoubtedly a stranger at Thorn, where he was naturalized in 1462: he married Barbara, of the noble Polish family of Watzelrode. Luke, one of her brothers, attained the high dignity

* The authority for this manner of spelling the name is Harknoch, *Alt und Neues Preussen*. The inscription, *Nicolao Copernico*, which appears on the plate, is a literal copy of the inscription on the original picture.





W. & J. S. Smith

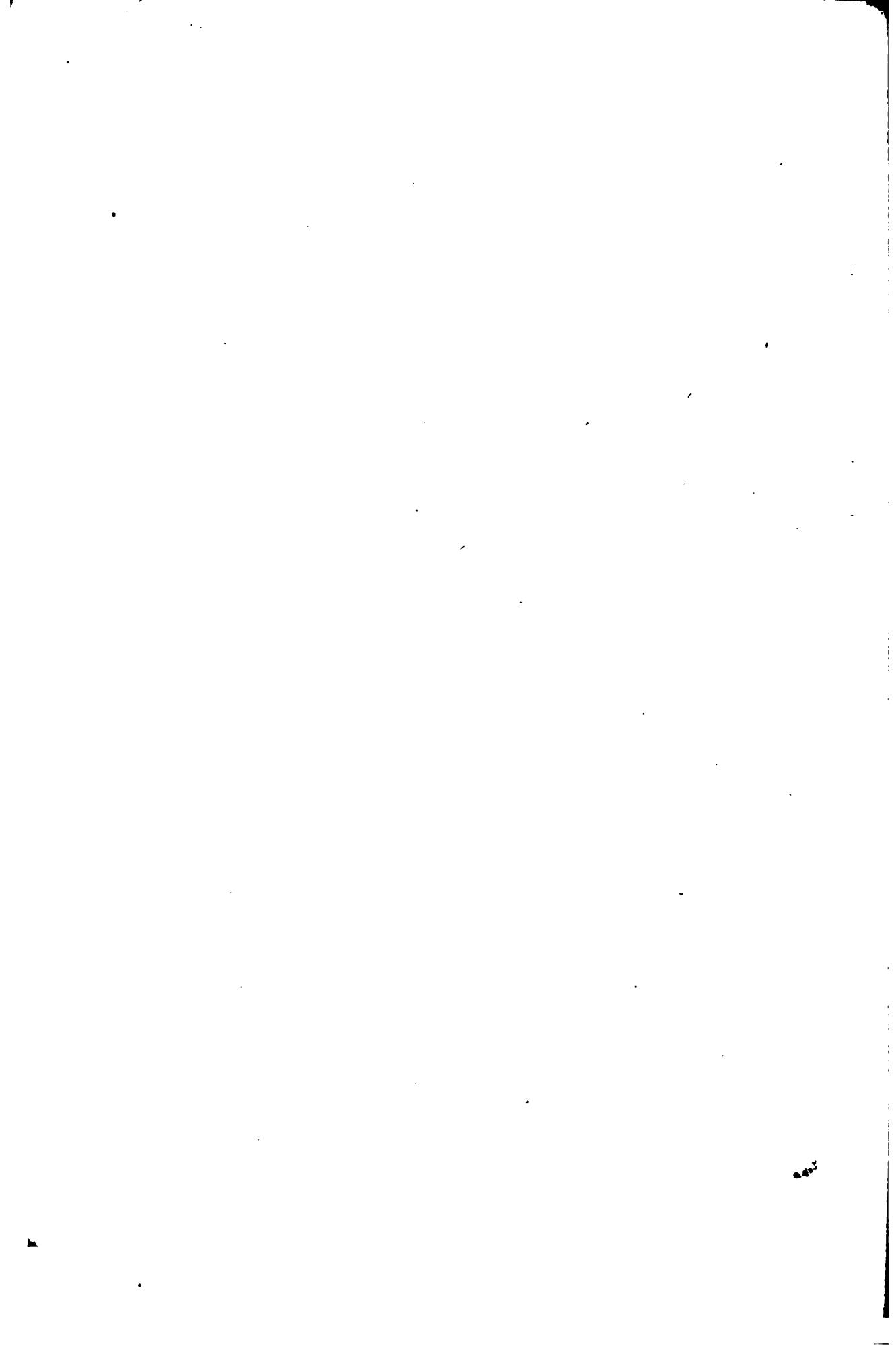
Approved by E. S. Johnson

NICOLAUS COPERNICUS.

*From a Lecture on the System of the Solar System,
presented by Dr. W. H. F. Banting, June 1770.*

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of Bishop of Ermeland in the year 1489, and the prospects of advancement which this connection held out to young Cöpernik, probably induced his father to destine him to the ecclesiastical profession. He acquired at home the first elements of a liberal education, and afterwards graduated at Cracow, where he remained till he received the diploma of Doctor in Arts and Medicine from that university. He is said to have made considerable proficiency in the latter branch of study; and possessed, even in more advanced life, so high a reputation for skill and knowledge, as to produce an erroneous belief that he had once followed medicine.

He also exhibited at an early age a very decided taste for mathematical studies, especially for astronomy; and attended the lectures, both public and private, of Albert Brudzewski, then mathematical professor at Cracow. Under his tuition, Copernicus, as we shall hereafter call him, became acquainted with the works of the astronomer, John Müller, (now more commonly known by his assumed appellation of Regiomontanus,) and the reputation of this celebrated man is said to have exercised a marked influence in deciding the bent of his future studies. Müller died at Rome a few years after the birth of Copernicus, and when the latter had reached an age capable of appreciating excellence and nourishing emulation, he found Müller's works disseminated through every civilized country of Europe, his genius and acquirements the subject of universal admiration, and his premature death still regretted as a public calamity. The feelings to which the contemplation of Müller's success gave rise, were still more excited by a journey into Italy, which Copernicus undertook about the year 1495. One of his brothers and his maternal uncle were already settled in Rome, which was therefore the point to which his steps eventually tended. He quitted home in his twenty-third year; when his diligence in cultivating the practical part of astronomy had already procured for him some reputation as a skilful observer. It seems to have been in contemplation of this journey that he began to study painting, in which he afterwards became a tolerable proficient.

Bologna was the first place at which he made any stay, being drawn thither by the reputation of the astronomical professor, Dominic Maria Novarra. Copernicus was not more delighted with this able instructor than Novarra with his intelligent pupil. He soon became an assistant and companion of Novarra in his observations, and in this capacity acquired considerable distinction, so that on his departure from Bologna and arrival at Rome, he found that his reputation had preceded him. He was appointed to a professorship in that

city, where he continued to teach mathematics for some years with considerable success.

It does not appear at what time Copernicus entered into holy orders : probably it may have been during his residence at Rome ; for on his return home he was named to the superintendence of the principal church in his native city Thorn. Not long afterwards his uncle Luke, who, in 1489, succeeded Nicolas von Thungen in the bishopric of Ermeland, enrolled him as one of the canons of his chapter. The cathedral church of the diocese of Ermeland is situated at Frauenburg, a small town built near one of the mouths of the Vistula, on the shore of the lake called Frische Haff, separated only by a narrow strip of land from the Gulf of Dantzig. In this situation, rendered unfavourable to astronomical observations by the frequent marshy exhalations rising from the river and lake, Copernicus took up his future abode, and made it the principal place of his residence during the remainder of his life. Here those astronomical speculations were renewed and perfected, the results of which have for ever consigned to oblivion the subtle contrivances invented by his predecessors to account for the anomalies of their own complicated theories.

But we should form a very erroneous opinion of the life and character of Copernicus, if we considered him, as it is probable that by most he is considered, the quiet inhabitant of a cloister, immersed solely in speculative inquiries. His disposition did not unfit him for taking an active share in the stirring events which were occurring around him, and it was not left entirely to his choice whether he would remain a mere spectator of them.

The chapter of Ermeland, at the time when he became a member of it, was the centre of a violent political struggle, in the decision of which Copernicus himself was called on to act a considerable part. In the latter half of the fifteenth century, a bitter war was carried on between the King of Poland and a military religious fraternity, called the Teutonic or German Knights of St. Mary of Jerusalem, who were incorporated towards the end of the twelfth century. Having been called into Prussia, they established themselves permanently in the country, built Thorn and several other cities, and gradually acquired a considerable share of independent power. On the death of Paul von Segendorf, bishop of Ermeland, Casimir, king of Poland, in pursuance of a design which he was then prosecuting, to get into his own hands the nomination to all the bishoprics in his dominions, appointed his secretary, Stanislas Opporowski, to the vacant see. The chapter of Ermeland proceeded notwithstanding to a separate nomination, and

elected Nicolas von Thungen. Opporowski, backed by Casimir, entered Ermeland at the head of a powerful army. From this period the new Bishop of Ermeland necessarily made common cause with the German Knights; they renounced their allegiance to the crown of Poland, and threw themselves on the protection of Matthias king of Hungary. At length, Casimir finding himself unable to master the confederacy, separated Nicolas von Thungen from it, by agreeing to recognise him as Prince-Bishop of Ermeland, on the usual condition of homage. Nicolas thus became confirmed in his dignity, but his unhappy subjects did not fare better on that account, the country being now exposed to the fury of the German Knights, as it had suffered before from the violence of the Polish soldiery. These disturbances were continued during the life of Luke Watzelrode, and the city of Frauenburg, as well as its neighbour Braunsburg, frequently became the theatre of warlike operations.

The management of the see was often committed to the care of Copernicus during the absence of his uncle, who on political grounds resided for the most part at the Court; and his activity in maintaining the rights of the chapter rendered him especially obnoxious to the Teutonic Order. In one of the short intervals of tranquillity, they took occasion to cite him before the meeting of the States at Posen, on account of some of his reports to his uncle concerning their encroachments. Gassendi, who mentions this circumstance, merely adds that at length his own and his uncle's merit secured the latter in the possession of his dignity. In 1512 Watzelrode died, and Copernicus was chosen as administrator of the see until the appointment of the new bishop, Fabian von Losingen. In 1518 the knights under their grand master, Albert of Brandenburg, took possession of Frauenburg and burnt it to the ground.

During the following year hostilities continued in the immediate neighbourhood of Frauenburg, but in the course of that summer, negotiations for peace between the Teutonic Order and the King of Poland were begun, through the mediation of the bishop. At last a truce was agreed upon for four years, during which Fabian von Losingen died, and Copernicus was again chosen administrator of the bishopric. In 1525 peace was concluded with the Teutonic Knights, Albert having consented to receive Prussia as a temporal fief from the King of Poland. It was probably on this occasion that Copernicus was selected to represent the chapter of Ermeland at the Diet at Graudenz, where the terms of peace were finally settled; and by his firmness the chapter recovered great part of the possessions which had been endangered

during the war. This service to his chapter was followed by another of more widely extended importance. During the struggle, which had continued with little interruption for more than half a century, the currency had become greatly debased and depreciated ; and one of the most important subjects of deliberation at the meeting at Graudenz related to the best method of restoring it. There was a great difference of opinion whether the intended new coinage should be struck according to the old value of the currency, or according to that to which it had fallen in consequence of its adulteration. To assist in the settlement of this important question, Copernicus drew up a table of the relative value of the coins, then in circulation throughout the country. He presented this to the States, accompanied by a memoir on the same subject, an extract from which may be seen in Hartknoch's History of Prussia. Throughout the troublesome period of which we have just given an outline, Copernicus seems to have displayed much political courage and talent. When tranquillity was at length restored, he resumed the astronomical studies which had been thus interrupted by more active duties.

There appears to be little doubt that the philosopher began to meditate on the ideas which led him to the true knowledge of the constitution of the solar system, at least as early as 1507. Every one, who has heard the name of Copernicus mentioned, is aware that before him the general belief was, that the earth occupies the centre of the universe ; that the changes of day and night are produced by the rapid revolution of the heavens, such as our senses erroneously lead us to believe, until more accurate and complicated observation teaches us the contrary ; that the change of seasons and apparent motions of the planetary bodies are caused by the revolution of the sun and planets from west to east round the earth, in orbits of various complexity, subject to the common daily motion of all from east to west.

Instead of the daily motion of the heavens from east to west, Copernicus substituted the revolution of the earth itself from west to east. He explained the other phenomena of the planetary motions by supposing the sun to be fixed, and the earth and other planets to revolve about him ; not, however, in simple circular orbits, according to the popular view of the Copernican theory. It was absolutely necessary to retain much of the old machinery of deferent and epicycle so long as the prejudice existed, from which Copernicus himself was not free, that nothing but circular motion is to be found in the heavens. Another step was made by the following generation, and astronomers were taught by Kepler to believe that the circular motion which

they were so anxious to preserve in their theories, has no real existence in the planetary orbits. The advantage of the new system above the old, was, that by not denying to the earth the motion which it really possesses, the author had to invent epicycles to explain only the real irregularities of the motions of the other planets, and not those apparent ones which arise out of the motion of the orb from which they are viewed.

It is commonly said that besides the two motions already mentioned, Copernicus attributed to the earth a third annual revolution on its axis. This was necessary from the idea which he had formed of its motion in its orbit. He conceived the earth to be carried round as if resting on a lever centred in the sun, which would cause the poles of the daily motion to point successively to different parts of the heavens; the third motion was added to restore these poles to their true position in every part of the orbit. It was afterwards seen that these two annual motions might be considered as resulting from one of a different kind, and in this simpler form they are now always considered by astronomical writers.

It would be an interesting inquiry to follow Copernicus through the train of reasoning which induced him to venture upon these changes; but it is impossible to attempt this, or to explain his system, within the limits to which this sketch is necessarily confined. In one point of view, his peculiar merit appears not to be in general sufficiently insisted upon. If he had merely suggested the principles of his new theory, he would doubtless have acquired, as now, the glory of lighting upon the true order of the solar system, and of founding thereupon a new school of astronomy: but his peculiar and characteristic merit, that by which he really earned his reputation, and which entitles him to take rank by the side of Newton in the history of astronomy, was the result of his conviction, that if his principles were indeed true, they would be verified by the examination of details, and the persevering resolution with which he thereupon set himself to rebuild an astronomical theory from the foundation. This was the reason, at least as much as the fear of incurring censure, why he delayed the publication of his system for thirty-six years. During the greater part of that time he was employed in collecting, by careful observation, the materials of which it is constructed: the opinions on which it is based, comprising the whole of what was afterwards declared to be heretical and impious, were widely known to be entertained by him long before the work itself appeared. He delayed to announce them formally, until he was able at the same time to show that they were

not random guesses, taken up from a mere affectation of novelty; but that with their assistance he had compiled tables of the planetary motions, which were immediately acknowledged even by those whose minds revolted most against the means by which they were obtained, to be far more correct than any which till then had appeared.

Copernicus's book seems to have been nearly completed in 1536, which is the date of a letter addressed to him by Cardinal Schonberg, prefixed to the work. So far at this time was the church of Rome from having decided on the line of stubborn opposition to the new opinions, which, in the following century, so much to her own disgrace, she adopted, that Copernicus was chiefly moved to complete and publish his work by the solicitations of this cardinal, and of Tindemann Giese, the bishop of Culm; and the book itself was dedicated to Pope Paul III. It is entitled, '*De Revolutionibus Orbium Coelestium, Libri VI.*' The dedication is written in a very different strain from that to which his followers were soon afterwards restricted. He there boldly avows his expectation that his theory would be attacked as contrary to the Scriptures, and his contempt of such ill-considered judgment. A more timid preface, in which the new theory is spoken of as a mere mathematical hypothesis, was added to this dedication by Osiander, to whom Copernicus had entrusted the care of preparing the book for publication. It has been said that the author was far from approving this, and if his death had not followed closely upon its publication, it is not improbable that he would have suppressed it.

The revolution of opinion that has followed the publication of this memorable work was not immediately perceptible: even to the end of the sixteenth century, as Montucla observes, the number of converts to its doctrines might be easily reckoned. The majority contented themselves with a disdainful sneer at the folly of introducing such ridiculous notions among the grave doctrines of astronomy: but although impertinent, it was as yet considered harmless; and all those who were at the pains to examine the reasoning on which the new theory was grounded, were allowed, unmolested, to own themselves convinced by it. It was not until the spirit of philosophical inquiry was fully awakened, that the church of Rome became sensible how much danger lurked in the new doctrines; and when the struggle began in earnest between the partisans of truth and falsehood, the censures pronounced upon the advocates of the earth's motion, were in fact aimed through them at all who presumed, even in natural phenomena, to see with other eyes than those of their spiritual advisers.

Copernicus did not live to witness any part of the effect produced

by his book. A sudden attack of dysentery and paralysis put an end to his life, within a few hours after the first printed copy had been shown to him, in his seventy-second year, on the 24th May, 1543, one century before the birth of Newton. The house at Thorn, in which he is said to have been born, is still shown, as well as that at Frauenburg, in which he passed the greater part of his life. An hydraulic machine, of which only the remains now exist, for supplying the houses of the canons with water, and another of similar construction at Graudenz, which is still in use, are said to have been constructed by him. An account of them may be seen in Nanke's Travels. From the little that is known of Copernicus's private character, his morals appear to have been unexceptionable; his temper good, his disposition kind, but inclining to seriousness. He was so highly esteemed in his own neighbourhood, that the attempt of a dramatic author to satirise him, by introducing his doctrine of the earth's motion upon the stage at Elbing, was received by the audience with the greatest indignation. He was buried in the cemetery of the chapter of Ermeland, and only a plain marble slab, inscribed with his name, marked the place of his interment. Until this was rediscovered in the latter half of the last century, an opinion prevailed that his remains had been transported to Thorn, and buried in the church of St. John, where the portrait of him is preserved, from which most of the prints in circulation have been taken. It is engraved in Hartknoch's Prussia, and, according to that author, copies of it were frequently made. The portrait prefixed to Gassendi's life, is a copy of that given in Boissard, with the addition of a furred robe. There is a good engraving of the same likeness, by Falck, a Polish artist, who lived about a century later than Copernicus. In the year 1584, Tycho Brahe commissioned Elia Olai to visit Frauenburg, for the purpose of more accurately determining the latitude of Copernicus's observatory, and, on that occasion, received as a present from the chapter the Ptolemaic scales, made by the astronomer himself, which he used in his observatory, and also a portrait of him said to have been painted by his own hand. Tycho placed these memorials, with great honour, in his own observatory, but it is not known what became of them after his death, and the dispersion of his instruments. The portrait, from which the engraving prefixed to this account is taken, belongs to the Royal Society, to which it was sent by Dr. Wolff, from Dantzig, in 1776. It was copied by Lormann, a Prussian artist, from one which had been long preserved and recognised as an original in the collection of the Dukes of Saxe Gotha. In

1735, Prince Grabowski, bishop of Ermeland, exchanged for it the portrait of an ancestor of the reigning duke, who had been formerly bishop of that see. Grabowski left it to his chamberlain, M. Huszarzewski, in whose possession it remained when the copy was made. Dr. Wolff, in the letter accompanying his present, (inserted in the Phil. Trans. vol. lxvii.) declares that this original had been compared with the Thorn portrait, and that the resemblance of the two is perfect. It does not appear very striking in the engravings. A colossal statue of Copernicus, executed by Thorwaldsen, was erected at Warsaw in 1830, with all the demonstrations of honour due to the memory of a man who holds so distinguished a place in the history of human discoveries.





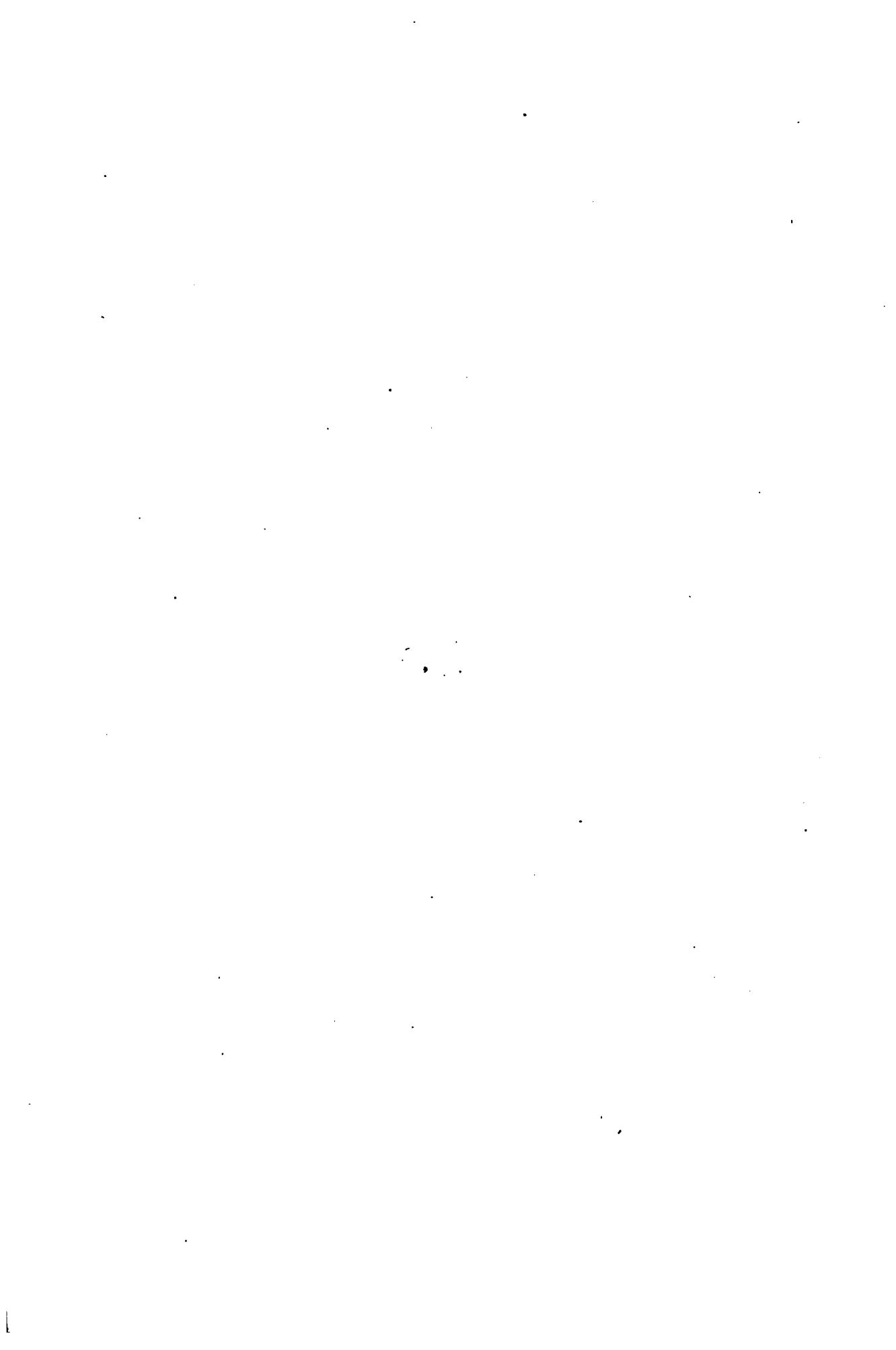
Engravings by F. R. Green

THE EAST ASIAN LIBRARY

*is now a Museum, & the same are to be visited at
the beginning of December, 1842.*

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THAT sanctity which settles on the memory of a great man, ought upon a double motive to be vigilantly sustained by his countrymen; first, out of gratitude to him, as one column of the national grandeur; secondly, with a practical purpose of transmitting unimpaired to posterity the benefit of ennobling models. High standards of excellence are among the happiest distinctions by which the modern ages of the world have an advantage over earlier, and we are all interested by duty as well as policy in preserving them inviolate. To the benefit of this principle, none amongst the great men of England is better entitled than Milton, whether as respects his transcendent merit, or the harshness with which his memory has been treated.

John Milton was born in London on the 9th day of December, 1608. His father, in early life, had suffered for conscience' sake, having been disinherited upon his abjuring the popish faith. He pursued the laborious profession of a scrivener, and having realised an ample fortune, retired into the country to enjoy it. Educated at Oxford, he gave his son the best education that the age afforded. At first, young Milton had the benefit of a private tutor: from him he was removed to St. Paul's School; next he proceeded to Christ's College, Cambridge, and finally, after several years' preparation by extensive reading, he pursued a course of continental travel. It is to be observed, that his tutor, Thomas Young, was a Puritan, and there is reason to believe that Puritan politics prevailed among the fellows of his college. This must not be forgotten in speculating on Milton's public life, and his inexorable hostility to the established government in church and state;

for it will thus appear probable, that he was at no time withdrawn from the influence of Puritan connections.

In 1632, having taken the degree of M.A., Milton finally quitted the University, leaving behind him a very brilliant reputation, and a general good will in his own college. His father had now retired from London, and lived upon his own estate at Horton, in Buckinghamshire. In this rural solitude, Milton passed the next five years, resorting to London only at rare intervals, for the purchase of books or music. His time was chiefly occupied with the study of Greek and Roman, and, no doubt, also of Italian literature. But that he was not negligent of composition, and that he applied himself with great zeal to the culture of his native literature, we have a splendid record in his '*Comus*', which, upon the strongest presumptions, is ascribed to this period of his life. In the same neighbourhood, and within the same five years, it is believed that he produced also the *Arcades*, and the *Lycidas*, together with *L'Allegro*, and *Il Penseroso*.

In 1637 Milton's mother died, and in the following year he commenced his travels. The state of Europe confined his choice of ground to France and Italy. The former excited in him but little interest. After a short stay at Paris he pursued the direct route to Nice, where he embarked for Genoa, and thence proceeded to Pisa, Florence, Rome, and Naples. He originally meant to extend his tour to Sicily and Greece; but the news of the first Scotch war, having now reached him, agitated his mind with too much patriotic sympathy to allow of his embarking on a scheme of such uncertain duration. Yet his homeward movements were not remarkable for expedition. He had already spent two months in Florence, and as many in Rome, yet he devoted the same space of time to each of them on his return. From Florence he proceeded to Lucca, and thence, by Bologna and Ferrara, to Venice; where he remained one month, and then pursued his homeward route through Verona, Milan, and Geneva.

Sir Henry Wotton had recommended, as the rule of his conduct, a celebrated Italian proverb, inculcating the policy of reserve and dissimulation. From a practised diplomatist, this advice was characteristic; but it did not suit the frankness of Milton's manners, nor the nobleness of his mind. He has himself stated to us his own rule of conduct, which was to move no questions of controversy, yet not to evade them when pressed upon him by others. Upon this principle he acted, not without some offence to his associates, nor wholly without danger to himself. But the offence, doubtless, was blended with respect; the danger was passed; and he returned home with all his purposes fulfilled. He had

conversed with Galileo ; he had seen whatever was most interesting in the monuments of Roman grandeur, or the triumphs of Italian art ; and he could report with truth, that in spite of his religion, every where undissembled, he had been honoured by the attentions of the great, and by the compliments of the learned.

After fifteen months of absence, Milton found himself again in London at a crisis of unusual interest. The king was on the eve of his second expedition against the Scotch ; and we may suppose Milton to have been watching the course of events with profound anxiety, not without some anticipation of the patriotic labour which awaited him. Meantime he occupied himself with the education of his sister's two sons, and soon after, by way of obtaining an honourable maintenance, increased the number of his pupils.

Dr. Johnson, himself at one period of his life a schoolmaster, on this occasion indulges in a sneer which is too injurious to be neglected. " Let not our veneration for Milton," says he, " forbid us to look with some degree of merriment on great promises and small performance : on the man who hastens home because his countrymen are contending for their liberty ; and when he reaches the scene of action, vapours away his patriotism in a private boarding-school." It is not true that Milton had made " great promises," or any promises at all. But if he had made the greatest, his exertions for the next sixteen years nobly redeemed them. In what way did Dr. Johnson expect that his patriotism should be expressed ? As a soldier ? Milton has himself urged his bodily weakness and intellectual strength, as reasons for following a line of duty for which he was better fitted. Was he influenced in his choice by fear of military dangers or hardships ? Far from it : " for I did not," he says, " shun those evils, without engaging to render to my fellow-citizens services much more useful, and attended with no less of danger." What services were those ? We shall state them in his own words, anticipated from an after period. " When I observed that there are in all three modes of liberty—first, ecclesiastical liberty ; secondly, civil liberty ; thirdly, domestic : having myself already treated of the first, and noticing that the magistrate was taking steps in behalf of the second, I concluded that the third, that is to say, domestic, or household liberty, remained to me as my peculiar province. And whereas this again is capable of a threefold division, accordingly as it regards the interests of conjugal life in the first place, or those of education in the second, or finally the freedom of speech, and the right of giving full publication to sound opinions,—I took it upon myself to defend all three, the first, by my Doctrine and Discipline of

Divorce, the second, by my Tractate upon Education, the third, by my Areopagitica."

In 1641 he conducted his defence of ecclesiastical liberty, in a series of attacks upon episcopacy. These are written in a bitter spirit of abusive hostility, for which we seek an insufficient apology in his exclusive converse with a party which held bishops in abhorrence, and in the low personal respectability of a large portion of the episcopal bench.

At Whitsuntide, in the year 1645, having reached his 35th year, he married Mary Powel, a young lady of good extraction in the county of Oxford. One month after, he allowed his wife to visit her family. This permission, in itself somewhat singular, the lady abused ; for when summoned back to her home, she refused to return. Upon this provocation, Milton set himself seriously to consider the extent of the obligations imposed by the nuptial vow ; and soon came to the conclusion, that in point of conscience it was not less dissolvable for hopeless incompatibility of temper than for positive adultery, and that human laws, in as far as they opposed this principle, called for reformation. These views he laid before the public in his *Doctrine and Discipline of Divorce*. In treating this question, he had relied entirely upon the force of argument, not aware that he had the countenance of any great authorities ; but finding soon afterwards that some of the early reformers, Bucer and P. Martyr, had taken the same view as himself, he drew up an account of their comments on this subject. Hence arose the second of his tracts on Divorce. Meantime, as it was certain that many would abide by what they supposed to be the positive language of Scripture, in opposition to all authority whatsoever, he thought it advisable to write a third tract on the proper interpretation of the chief passages in Scripture, which refer to this point. A fourth tract, by way of answer to the different writers who had opposed his opinions, terminated the series.

Meantime the lady, whose rash conduct had provoked her husband into these speculations, saw reason to repent of her indiscretion, and finding that Milton held her desertion to have cancelled all claims upon his justice, wisely resolved upon making her appeal to his generosity. This appeal was not made in vain : in a single interview at the house of a common friend, where she had contrived to surprise him, and suddenly to throw herself at his feet, he granted her a full forgiveness : and so little did he allow himself to remember her misconduct, or that of her family, in having countenanced her desertion, that soon afterwards, when they were involved in the general ruin of

the royal cause, he received the whole of them into his house, and exerted his political influence very freely in their behalf. Fully to appreciate this behaviour, we must recollect that Milton was not rich, and that no part of his wife's marriage portion (£1000) was ever paid to him.

His thoughts now settled upon the subject of education, which it must not be forgotten that he connected systematically with domestic liberty. In 1644 he published his essay on this great theme, in the form of a letter to his friend Hartlib, himself a person of no slight consideration. In the same year he wrote his 'Areopagitica, a speech for the liberty of unlicensed printing.' This we are to consider in the light of an oral pleading, or regular oration, for he tells us expressly [Def. 2.] that he wrote it "ad justæ orationis modum." It is the finest specimen extant of generous scorn. And very remarkable it is, that Milton, who broke the ground on this great theme, has exhausted the arguments which bear upon it. He opened the subject: he closed it. And were there no other monument of his patriotism and his genius, for this alone he would deserve to be held in perpetual veneration. In the following year, 1645, was published the first collection of his early poems: with his sanction, undoubtedly, but probably not upon his suggestion. The times were too full of anxiety to allow of much encouragement to polite literature: at no period were there fewer readers of poetry. And for himself in particular, with the exception of a few sonnets, it is probable that he composed as little as others read, for the next ten years: so great were his political exertions.

Early in 1649 the king was put to death. For a full view of the state of parties which led to this memorable event, we must refer the reader to the history of the times. That act was done by the Independent party, to which Milton belonged, and was precipitated by the intrigues of the Presbyterians, who were making common cause with the king, to ensure the overthrow of the Independents. The lamentations and outcries of the Presbyterians were long and loud. Under colour of a generous sympathy with the unhappy prince, they mourned for their own political extinction, and the triumph of their enemies. This Milton well knew, and to expose the selfishness of their clamours, as well as to disarm their appeals to the popular feeling, he now published his 'Tenure of Kings and Magistrates.' In the first part of this, he addresses himself to the general question of tyrannicide, justifying it, first, by arguments of general reason, and secondly, by the authority of the reformers. But in the latter part he argues the case personally, contending that the Presbyterians at least

were not entitled to condemn the king's death, who, in levying war, and doing battle against the king's person, had done so much that tended to no other result. "If then," is his argument, "in these proceedings against their king, they may not finish, by the usual course of justice, what they have begun, they could not lawfully begin at all." The argument seems inconclusive, even as addressed *ad hominem*: the struggle bore the character of a war between independent parties, rather than a judicial inquiry, and in war the life of a prisoner becomes sacred.

At this time the Council of State had resolved no longer to employ the language of a rival people in their international concerns, but to use the Latin tongue as a neutral and indifferent instrument. The office of Latin Secretary, therefore, was created, and bestowed upon Milton. His hours from henceforth must have been pretty well occupied by official labours. Yet at this time he undertook a service to the state, more invidious, and perhaps more perilous, than any in which his politics ever involved him. On the very day of the king's execution, and even below the scaffold, had been sold the earliest copies of a work, admirably fitted to shake the new government, and for the sensation which it produced at the time, and the lasting controversy which it has engendered, one of the most remarkable known in literary history. This was the 'Eikon Basilike, or Royal Image,' professing to be a series of meditations drawn up by the late king, on the leading events from the very beginning of the national troubles. Appearing at this critical moment, and co-operating with the strong reaction of the public mind, already effected in the king's favour by his violent death, this book produced an impression absolutely unparalleled in any age. Fifty thousand copies, it is asserted, were sold within one year; and a posthumous power was thus given to the king's name by one little book, which exceeded, in alarm to his enemies, all that his armies could accomplish in his life-time. No remedy could meet the evil in degree. As the only one that seemed fitted to it in kind, Milton drew up a running commentary upon each separate head of the original: and as that had been entitled the king's image, he gave to his own the title of 'Eikonoclastes, or Image-breaker,' "the famous surname of many Greek emperors, who broke all superstitious images in pieces."

This work was drawn up with the usual polemic ability of Milton; but by its very plan and purpose, it threw him upon difficulties which no ability could meet. It had that inevitable disadvantage which belongs to all ministerial and secondary works: the order and choice of topics being all determined by the Eikon, Milton, for the first time,

wore an air of constraint and servility, following a leader and obeying his motions, as an engraver is controlled by the designer, or a translator by his original. It is plain, from the pains he took to exonerate himself from such a reproach, that he felt his task to be an invidious one. The majesty of grief, expressing itself with Christian meekness, and appealing, as it were from the grave, to the consciences of men, could not be violated without a recoil of angry feeling, ruinous to the effect of any logic, or rhetoric the most persuasive. The affliction of a great prince, his solitude, his rigorous imprisonment, his constancy to some purposes which were not selfish, his dignity of demeanour in the midst of his heavy trials, and his truly Christian fortitude in his final sufferings—these formed a rhetoric which made its way to all hearts. Against such influences the eloquence of Greece would have been vain. The nation was spell-bound; and a majority of its population neither could or would be disenchanted.

Milton was ere long called to plead the same great cause of liberty upon an ampler stage, and before a more equitable audience; to plead not on behalf of his party against the Presbyterians and Royalists, but on behalf of his country against the insults of a hired Frenchman, and at the bar of the whole Christian world. Charles II. had resolved to state his father's case to all Europe. This was natural, for very few people on the continent knew what cause had brought his father to the block, or why he himself was a vagrant exile from his throne. For his advocate he selected Claudio Salmasius, and that was most injudicious. This man, eminent among the scholars of the day, had some brilliant accomplishments, which were useless in such a service, while in those which were really indispensable, he was singularly deficient. He was ignorant of the world, wanting in temper and self-command, conspicuously unfurnished with eloquence, or the accomplishments of a good writer, and not so much as master of a pure Latin style. Even as a scholar, he was very unequal; he had committed more important blunders than any man of his age, and being generally hated, had been more frequently exposed than others to the harsh chastisements of men inferior to himself in learning. Yet the most remarkable deficiency of all which Salmasius betrayed, was in his entire ignorance, whether historical or constitutional, of every thing which belonged to the case.

Having such an antagonist, inferior to him in all possible qualifications, whether of nature, of art, of situation, it may be supposed that Milton's triumph was absolute. He was now thoroughly indemnified for the poor success of his 'Eikonoclastes.' In that instance

he had the mortification of knowing that all England read and wept over the king's book, whilst his own reply was scarcely heard of. But here the tables were turned : the very friends of Salmasius complained, that while his defence was rarely inquired after, the answer to it, 'Defensio pro Populo Anglicano,' was the subject of conversation from one end of Europe to the other. It was burnt publicly at Paris and Toulouse : and by way of special annoyance to Salmasius, who lived in Holland, was translated into Dutch.

Salmasius died in 1653, before he could accomplish an answer that satisfied himself : and the fragment which he left behind him was not published, until it was no longer safe for Milton to rejoin. Meantime others pressed forward against Milton in the same controversy, of whom some were neglected, one was resigned to the pen of his nephew, Philips, and one answered diffusely by himself. This was Du Moulin, or, as Milton persisted in believing, Morus, a reformed minister then resident in Holland, and at one time a friend of Salmasius. For two years after the publication of this man's book (*Regii Sanguinis Clamor*) Milton received multiplied assurances from Holland that Morus was its true author. This was not wonderful. Morus had corrected the press, had adopted the principles and passions of the book, and perhaps at first had not been displeased to find himself reputed the author. In reply, Milton published his 'Defensio Secunda pro Populo Anglicano,' seasoned in every page with some stinging allusions to Morus. All the circumstances of his early life are recalled, and some were such as the grave divine would willingly have concealed from the public eye. He endeavoured to avert too late the storm of wit and satire about to burst on him, by denying the work, and even revealing the author's real name : but Milton resolutely refused to make the slightest alteration. The true reason of this probably was that the work was written so exclusively against Morus, full of personal scandal, and puns and gibes upon his name, which in Greek signifies foolish, that it would have been useless as an answer to any other person. In Milton's conduct on this occasion, there is a want both of charity and candour. Personally, however, Morus had little ground for complaint : he had bearded the lion by submitting to be reputed the author of a work not his own. Morus replied, and Milton closed the controversy by a defence of himself, in 1655.

He had, indeed, about this time some domestic afflictions, which reminded him of the frail tenure on which all human blessings were held, and the necessity that he should now begin to concentrate his mind upon the great works which he meditated. In 1651 his first wife

died, after she had given him three daughters. In that year he had already lost the use of one eye, and was warned by the physicians that if he persisted in his task of replying to Salmasius, he would probably lose the other. The warning was soon accomplished, according to the common account, in 1654; but upon collating his letter to Philaras the Athenian, with his own pathetic statement in the *Defensio Secunda*, we are disposed to date it from 1652. In 1655 he resigned his office of secretary, in which he had latterly been obliged to use an assistant.

Some time before this period, he had married his second wife, Catherine Woodcock, to whom it is supposed that he was very tenderly attached. In 1657 she died in child-birth, together with her child, an event which he has recorded in a very beautiful sonnet. This loss, added to his blindness, must have made his home, for some years, desolate and comfortless. Distress, indeed, was now gathering rapidly upon him. The death of Cromwell in the following year, and the imbecile character of his eldest son, held out an invitation to the aspiring intriguers of the day, which they were not slow to improve. It soon became too evident to Milton's discernment, that all things were hurrying forward to restoration of the ejected family. Sensible of the risk, therefore, and without much hope, but obeying the summons of his conscience, he wrote a short tract on the ready and easy way to establish a free commonwealth, concluding with these noble words, "Thus much I should perhaps have said, though I were sure I should have spoken only to trees and stones, and had none to cry to, but with the Prophet, Oh earth! earth! earth! to tell the very soil itself what her perverse inhabitants are deaf to. Nay, though what I have spoken should happen [which Thou suffer not, who didst create free, nor Thou next, who didst redeem us from being servants of men] to be the last words of our expiring liberty." A slighter pamphlet on the same subject, 'Brief Notes' upon a sermon by one Dr. Griffiths, must be supposed to be written rather with a religious purpose of correcting a false application of sacred texts, than with any great expectation of benefiting his party. Dr. Johnson, with unseemly violence, says, that he kicked when he could strike no longer: more justly it might be said that he held up a solitary hand of protestation on behalf of that cause now in its expiring struggles, which he had maintained when prosperous; and that he continued to the last one uniform language, though he now believed resistance to be hopeless, and knew it to be full of peril.

That peril was soon realised. In the spring of 1660, the Restoration was accomplished amidst the tumultuous rejoicings of the people.

It was certain that the vengeance of government would lose no time in marking its victims ; for some of them in anticipation had already fled. Milton wisely withdrew from the first fury of the persecution, which now descended on his party. He secreted himself in London, and when he returned into the public eye in the winter, found himself no farther punished, than by a general disqualification for the public service, and the disgrace of a public burning inflicted on his Eikonoclastes, and his *Defensio pro Populo Anglicano*.

Apparently it was not long after this time that he married his third wife, Elizabeth Minshul, a lady of good family in Cheshire. In what year he began the composition of his 'Paradise Lost,' is not certainly known : some have supposed in 1658. There is better ground for fixing the period of its close. During the plague of 1665 he retired to Chalfont, and at that time Elwood the quaker read the poem in a finished state. The general interruption of business in London occasioned by the plague, and prolonged by the great fire in 1666, explain why the publication was delayed for nearly two years. The contract with the publisher is dated April 26, 1667, and in the course of that year the *Paradise Lost* was published. Originally it was printed in ten books: in the second, and subsequent editions, the seventh and tenth books were each divided into two. Milton received only five pounds in the first instance on the publication of the book. His farther profits were regulated by the sale of the three first editions. Each was to consist of fifteen hundred copies, and on the second and third respectively reaching a sale of thirteen hundred, he was to receive a farther sum of five pounds for each ; making a total of fifteen pounds. The receipt for the second sum of five pounds is dated April 26, 1669.

In 1670 Milton published his *History of Britain*, from the fabulous period to the Norman conquest. And in the same year he published in one volume *Paradise Regained* and *Samson Agonistes*. The *Paradise Regained*, it has been currently asserted that Milton preferred to *Paradise Lost*. This is not true ; but he may have been justly offended by the false principles on which some of his friends maintained a reasonable opinion. The *Paradise Regained* is inferior by the necessity of its subject and design. In the *Paradise Lost* Milton had a field properly adapted to a poet's purposes : a few hints in Scripture were expanded. Nothing was altered, nothing absolutely added : but that, which was told in the Scriptures in sum, or in its last results, was developed into its whole succession of parts. Thus, for instance, "There was war in Heaven," furnished the matter

for a whole book. Now for the latter poem, which part of our Saviour's life was it best to select as that in which Paradise was Regained? He might have taken the Crucifixion, and here he had a much wider field than in the Temptation; but then he was subject to this dilemma. If he modified, or in any way altered, the full details of the four Evangelists, he shocked the religious sense of all Christians; yet, the purposes of a poet would often require that he should so modify them. With a fine sense of this difficulty, he chose the narrow basis of the Temptation in the Wilderness, because there the whole had been wrapt up in Scripture in a few brief abstractions. Thus, "He showed him all the kingdoms of the earth," is expanded, without offence to the nicest religious scruple, into that matchless succession of pictures, which bring before us the learned glories of Athens, Rome in her civil grandeur, and the barbaric splendour of Parthia. The actors being only two, the action of Paradise Regained is unavoidably limited. But in respect of composition, it is perhaps more elaborately finished than *Paradise Lost*.

In 1672 he published in Latin, a new scheme of Logic, on the method of Ramus, in which Dr. Johnson suspects him to have meditated the very eccentric crime of rebellion against the universities. Be that as it may, this little book is in one view not without interest: all scholastic systems of logic confound logic and metaphysics; and some of Milton's metaphysical doctrines, as the present Bishop of Winchester has noticed, have a reference to the doctrines brought forward in his posthumous Theology. The history of the last-named work is remarkable. That such a treatise had existed, was well known, but it had disappeared, and was supposed to be irrecoverably lost. But in the year 1823, a Latin manuscript was discovered in the State-Paper Office, under circumstances which left little doubt of its being the identical work which Milton was known to have composed; and this belief was corroborated by internal evidence. By the King's command, it was edited by Mr. Sumner, the present Bishop of Winchester, and separately published in a translation. The title is 'De Doctrina Christiana, libri duo posthumi'—A Treatise on Christian Doctrine, compiled from the Holy Scriptures alone. In elegance of style, and sublimity of occasional passages, it is decidedly inferior to other of his prose works. As a system of theology, probably no denomination of Christians would be inclined to bestow other than a very sparing praise upon it. Still it is well worth the notice of those students, who are qualified to weigh the opinions, and profit by the errors of such a writer, as being composed with Milton's usual originality of

thought and inquiry, and as being remarkable for the boldness with which he follows up his arguments to their legitimate conclusion, however startling those conclusions may be.

What he published after the scheme of logic, is not important enough to merit a separate notice. His end was now approaching. In the summer of 1674 he was still cheerful, and in the possession of his intellectual faculties. But the vigour of his bodily constitution had been silently giving way, through a long course of years, to the ravages of gout. It was at length thoroughly undermined: and about the tenth of November, 1674, he died with tranquillity so profound, that his attendants were unable to determine the exact moment of his decease. He was buried, with unusual marks of honour, in the chancel of St. Giles' at Cripplegate.

The published lives of Milton are very numerous. Among the best and most copious are those prefixed to the editions of Milton's works by Bishop Newton, Todd, and Symmons. An article of considerable length, founded upon the latter, will be found in Rees's Cyclopaedia. But the most remarkable is that written by Dr. Johnson in his 'Lives of the British Poets,' a production grievously disfigured by prejudice, yet well deserving the student's attentions for its intrinsic merits, as well as for the celebrity which it has attained.





Drawn by E. H. Jones

NAME'S WAY

A man's name is Will, who
in the pupfish fishery takes part

With a spear and a bow and arrow, and a gun.

I under water, he on land, finds his prey.





THOSE who by cultivating the arts of peace have risen from obscurity to fame and wealth, seldom leave to the biographer such ample memorials of their private lives as he could wish to work upon. The details of a life spent in the laboratory or in the workshop rarely present much variety; or possess much interest, except when treated scientifically for the benefit of the scientific reader. Such is the case with James Watt: the history of his long and prosperous life is little more than the history of his scientific pursuits; and this must plead our excuse if it chance that the reader should here find less personal information about him than he may desire. Fortunately his character has been sketched before it was too late, by the masterly hand of one who knew him well. Most of the accounts of him already published are said, by those best qualified to judge, to be inaccurate. The same authority is pledged to the general correctness of the article Watt, in the supplement to the Encyclopaedia Britannica, and from that article the facts of this short memoir are taken.

Both the grandfather and uncle of James Watt were men of some repute in the West of Scotland, as mathematical teachers and surveyors. His father was a merchant at Greenock, where Watt was born, June 19, 1736, and where he received the rudiments of his education. Our knowledge of the first twenty years of his life may be comprised in a few short sentences. At an early age he manifested a partiality for the practical part of mechanics, which he retained through life, taking pleasure in the manual exercise of his early trade, even when hundreds of hands were ready to do his bidding. In his eighteenth year he went to London, to obtain instruction in the profession of a mathematical instrument-maker; but he remained there little more than a year, being compelled to return home by the precariousness of his health.

In 1757, shortly after his return home, he was appointed instrument-

maker to the University of Glasgow, and accommodated with premises within the precincts of that learned body. Robert Simpson, Adam Smith, and Dr. Black, were then some of the professors; and from communication with such men, Watt could not fail to derive the most valuable mental discipline. With Dr. Black, and with John Robison, then a student, afterwards eminent as a mathematician and natural philosopher, he formed a friendship which was continued through life. In 1763 he removed into the town of Glasgow, intending to practise as a civil engineer, and in the following year was married to his cousin Miss Miller.

In the winter of 1763-4, his mind was directed to the earnest prosecution of those inventions which have made his name celebrated over the world, by having to repair a working model of a steam-engine on Newcomen's construction, for the lectures of the Professor of Natural Philosophy. In treating this subject, we must presume that the reader possesses a competent acquaintance with the history and construction of the steam-engine. Those who do not possess the requisite knowledge, will find it briefly and clearly stated in a short treatise written by Mr. Farey, and in many works of easy access. Newcomen's engine, at the time of which we speak, was of the last and most approved construction. The moving power was the weight of the air pressing on the upper side of a piston working in a cylinder; steam being employed at the termination of each downward stroke to raise the piston with its load of air up again, and then to form a vacuum by its condensation when cooled by a jet of cold water, which was thrown into the cylinder when the admission of steam was stopped. Upon repairing the model, Watt was struck by the incapability of the boiler to produce a sufficient supply of steam, though it was larger in proportion to the cylinder than was usual in working engines. This arose from the nature of the cylinder, which being made of brass, a better conductor of heat than cast-iron, and presenting, in consequence of its small size, a much larger surface in proportion to its solid content than the cylinders of working engines, necessarily cooled faster between the strokes, and therefore at every fresh admission consumed a greater proportionate quantity of steam. But being made aware of a much greater consumption of steam than he had imagined, he was not satisfied without a thorough inquiry into the cause. With this view he made experiments upon the merits of boilers of different constructions; on the effect of substituting a less perfect conductor, as wood, for the material of the cylinder; on the quantity of coal required to evaporate a given quantity of water; on the degree of

expansion of water in the shape of steam : and he constructed a boiler which showed the quantity of water evaporated in a given time, and thus enabled him to calculate the quantity of steam consumed at each stroke of the engine. This proved to be several times the content of the cylinder. He soon discovered that, whatever the size and construction of the cylinder, an admission of hot steam into it must necessarily be attended with very great waste, if, in condensing the steam previously admitted, that vessel had been cooled down sufficiently to produce a vacuum at all approaching to a perfect one. If, on the other hand, to prevent this waste, he cooled it less thoroughly, a considerable quantity of steam remained uncondensed within, and by its resistance weakened the power of the descending stroke. These considerations pointed out a vital defect in Newcomen's construction : involving either a loss of steam, and consequent waste of fuel, or a loss of power from the piston's descending at every stroke through a very imperfect vacuum.

It soon occurred to Watt, that if the condensation were performed in a separate vessel, one great evil, the cooling of the cylinder, and the consequent waste of steam, would be avoided. The idea once started, he soon verified it by experiment. By means of an arrangement of cocks, a communication was opened between the cylinder, and a distinct vessel exhausted of its air, at the moment when the former was filled with steam. The vapour of course rushed to fill up the vacuum, and was there condensed by the application of external cold, or by a jet of water : so that fresh steam being continually drawn off from the cylinder to supply the vacuum continually created, the density of that which remained might be reduced within any assignable limits. This was the great and fundamental improvement.

Still, however, there was a radical defect in the atmospheric engine, inasmuch as the air being admitted into the cylinder at every stroke, a great deal of heat was abstracted, and a proportionate quantity of steam wasted. To remedy this, Watt excluded the air from the cylinder altogether ; and recurred to the original plan of making steam the moving power of the engine, not a mere agent to produce a vacuum. In removing the difficulties of construction which beset this new plan, he displayed great ingenuity and powers of resource. On the old plan, if the cylinder was not bored quite true, or the piston not accurately fitted, a little water poured upon the top rendered it perfectly air-tight, and the leakage into the cylinder was of little consequence, so long as the injection water was thrown into that vessel. But on the new plan, no water could possibly be admitted within the

cylinder ; and it was necessary, not merely that the piston should be air-tight, but that it should work through an air-tight collar, that no portion of the steam admitted above it might escape. This he accomplished by packing the piston and the stuffing-box, as it is called, through which the piston-rod works, with hemp. A farther improvement consisted in equalizing the motion of the engine by admitting the steam alternately above and below the piston, by which the power is doubled in the same space, and with the same strength of material. The vacuum of the condenser was perfected by adding a powerful pump, which at once drew off the condensed, and injection water, and with it any portion of air which might find admission ; as this would interfere with the action of the engine, if allowed to accumulate. His last great change was to cut off the communication between the cylinder and the boiler, when a portion only, as one-third or one-half, of the stroke was performed ; leaving it to the expansive power of the steam to complete it. By this, economy of steam was obtained ; together with the power of varying the effort of the engine according to the work which it has to do, by admitting the steam through a greater or smaller portion of the stroke.

These are the chief improvements which Watt effected at different periods of his life. Of the patient ingenuity by which they were rendered complete, and the many beautiful contrivances by which he gave to senseless matter an almost instinctive power of self-adjustment, with precision of action more than belongs to any animated being, we cannot speak ; nor would it be easy to render description intelligible without the help of diagrams. His first patent bears date June 5, 1769, so that some time elapsed between the invention and publication of his improvements. The delay arose partly from his own want of funds, and the difficulty of finding a person possessed of capital, who could appreciate the merit of his invention ; partly from his own increasing occupation as a civil engineer. In that capacity he soon acquired reputation, and was employed in various works of importance. In 1767 he made a survey for a canal, projected, but not executed, between the Clyde and Forth. He also made the original survey for the Crinan Canal, since carried into effect by Mr. Rennie ; and was employed extensively in forming harbours, deepening rivers, constructing bridges, and all the most important labours of his profession. The last and greatest work of this kind on which he was employed, was a survey for a canal between Fort William and Inverness, where the Caledonian Canal now runs.

At last Dr. Roebuck, the establisher of the Carron iron-works,

became Watt's partner in the patent, upon condition that he should supply the necessary funds for bringing out the invention, and receive in return two-thirds of the profit. That gentleman, however, was unable to fulfil his share of the contract, and in 1774 resigned his interest to Mr. Boulton, the proprietor of the Soho works, near Birmingham. Watt then determined to remove his residence to England; a step to which he probably was rendered more favourable by the death of his wife in 1773. In 1775, Parliament, in consideration of the national importance of Mr. Watt's inventions, and the difficulty and expense of introducing them to public notice, prolonged the duration of his patent for twenty-five years.

The partners now erected engines for pumping water upon a large scale, and it was found by comparative trials that the saving of fuel amounted to three-fourths of the whole quantity consumed by the engines formerly in use. This fact once established, the new machine was soon introduced into the deep mines of Cornwall, where, of all places, its merits could best be tried. The patentees were paid by receiving one-third of the savings of fuel. From the time that the new value of their invention was fully proved, Messrs. Boulton and Watt had to maintain a harassing contest with numerous invaders of their patent rights; and it was not until near the expiration of the patent in 1800, that the question was definitively settled in their favour. These attacks, however, did not prevent Watt from realizing an ample fortune, the well-earned reward of his industry and ability, with which he established himself at Heathfield, in the county of Stafford.

At one period Watt devoted much attention to the construction of a rotary engine, in which the power of the steam should be applied directly to produce circular motion. Like all who have yet attempted to solve this problem, he failed to obtain a satisfactory result; and turned his attention in consequence to discover the best means of converting reciprocal into rotary motion. For this purpose he originally intended to use the crank; but having been forestalled by a neighbouring manufacturer, who took out a patent for it, having obtained his knowledge, as it is said, surreptitiously from one of Watt's workmen, he invented the combination called the sun and planet wheels. Afterwards he recurred to the crank, without a shadow of opposition from the patentee. He was also the author of that elegant contrivance, the parallel motion, which superseded the old-fashioned beam and chain, and rendered possible the introduction of the double engine, in which an upward, as well as a downward force is applied.

His attention, however, was not confined to the subject of steam. He invented a copying machine, for which he took out a patent, in 1780. In the winter of 1784-5, he erected an apparatus, the first of its kind, for warming his apartments by steam. He also introduced into England the method of bleaching with oxymuriatic acid, or chlorine, invented and communicated to him for publication by his friend Berthollet. Towards the conclusion of life, he constructed a machine for making fac-similes of busts and other carved work; and also busied himself in forming a composition for casts, possessing much of the transparency and hardness of marble.

With chemistry Watt was well acquainted. In 1782 he published a paper in the Philosophical Transactions, entitled, 'Thoughts on the constituent parts of Water, and of Dephlogisticated Air.' His only other literary undertaking was the revision of Professor Robison's articles on Steam and Steam Engines, in the Encyclopædia Britannica, to which he added notes containing an account of his own experiments on steam, and a history of his improvements in the engine.

About the year 1775 he married his second wife, Miss Macgregor. Though his health had been delicate through life, yet he reached the advanced age of eighty-four. He died at his house at Heathfield, August 25, 1819. Chantrey made a bust of him some years before his death; from which the same distinguished artist has since executed two marble statues, one for his tomb, the other for the Hunterian Museum at Glasgow; and a third in bronze, also for Glasgow, which has recently been erected there. It represents Watt seated in deep thought, a pair of compasses in his hand, and a scroll, on which is the draught of a steam-engine, open on his knee.

We cannot better close this account, than with a short extract from the sketch of his character, to which we have alluded in a former page. After speaking of the lasting celebrity which Watt has acquired by his mechanical inventions, the author continues, that "to those to whom he more immediately belonged, who lived in his society and enjoyed his conversation, this is not, perhaps, the character in which he will be most frequently recalled,—most deeply lamented,—or even most highly admired. Independently of his great attainments in mechanics, Mr. Watt was an extraordinary and in many respects a wonderful man. Perhaps no individual in his age possessed so much and such varied and exact information, had read so much, or remembered what he had read so accurately and well. He had infinite quickness of apprehension, a prodigious memory, and a certain rectifying and methodising power of understanding, which extracted

something precious out of all that was presented to it. His stores of miscellaneous knowledge were immense, and yet less astonishing than the command he had at all times over them. It seemed as if every subject that was casually started in conversation with him, had been that which he had been last occupied in studying and exhausting ; such was the copiousness, the precision, and the admirable clearness of the information which he poured out upon it without effort or hesitation. Nor was this promptitude and compass of knowledge confined, in any degree, to the studies connected with his ordinary pursuits. That he should have been minutely and extensively skilled in chemistry and the arts, and in most of the branches of physical science, might, perhaps, have been conjectured ; but it could not have been inferred from his usual occupations, and probably is not generally known, that he was curiously learned in many branches of antiquity, metaphysics, medicine, and etymology ; and perfectly at home in all the details of architecture, music, and law. He was well acquainted, too, with most of the modern languages, and familiar with their most recent literature. Nor was it at all extraordinary to hear the great mechanician and engineer detailing and expounding, for hours together, the metaphysical theories of the German logicians, or criticising the measures or the matter of the German poetry. * * *

" It is needless to say, that with those vast resources, his conversation was at all times rich and instructive in no ordinary degree. But it was, if possible, still more pleasing than wise, and had all the charms of familiarity, with all the substantial treasures of knowledge. No man could be more social in his spirit, less assuming or fastidious in his manners, or more kind and indulgent towards all who approached him.

* * * His talk, too, though overflowing with information, had no resemblance to lecturing, or solemn discoursing ; but, on the contrary, was full of colloquial spirit and pleasantry. He had a certain quiet and grave humour, which ran through most of his conversation, and a vein of temperate jocularity, which gave infinite zest and effect to the condensed and inexhaustible information which formed its main staple and characteristic. There was a little air of affected testiness, and a tone of pretended rebuke and contradiction, which he used towards his younger friends, that was always felt by them as an endearing mark of his kindness and familiarity, and prized accordingly, far beyond all the solemn compliments that ever proceeded from the lips of authority. His voice was deep and powerful ; though he commonly spoke in a low and somewhat monotonous tone, which harmonized admirably with the weight and brevity of his observations, and set off to the greatest

advantage the pleasant anecdotes which he delivered with the same grave tone, and the same calm smile playing soberly on his lips. There was nothing of effort, indeed, or of impatience, any more than of pride or levity, in his demeanour; and there was a finer expression of reposing strength, and mild self-possession in his manner, than we ever recollect to have met with in any other person. He had in his character the utmost abhorrence for all sorts of forwardness, parade, and pretension; and indeed never failed to put all such impostors out of countenance, by the manly plainness and honest intrepidity of his language and deportment.

"He was twice married, but has left no issue but one son, long associated with him in his business and studies, and two grandchildren by a daughter who predeceased him. He was fellow of the Royal Societies both of London and Edinburgh, and one of the few Englishmen who were elected members of the National Institute of France. All men of learning and of science were his cordial friends; and such was the influence of his mild character, and perfect fairness and liberality, even upon the pretender to these accomplishments, that he lived to disarm even envy itself, and died, we verily believe, without a single enemy."

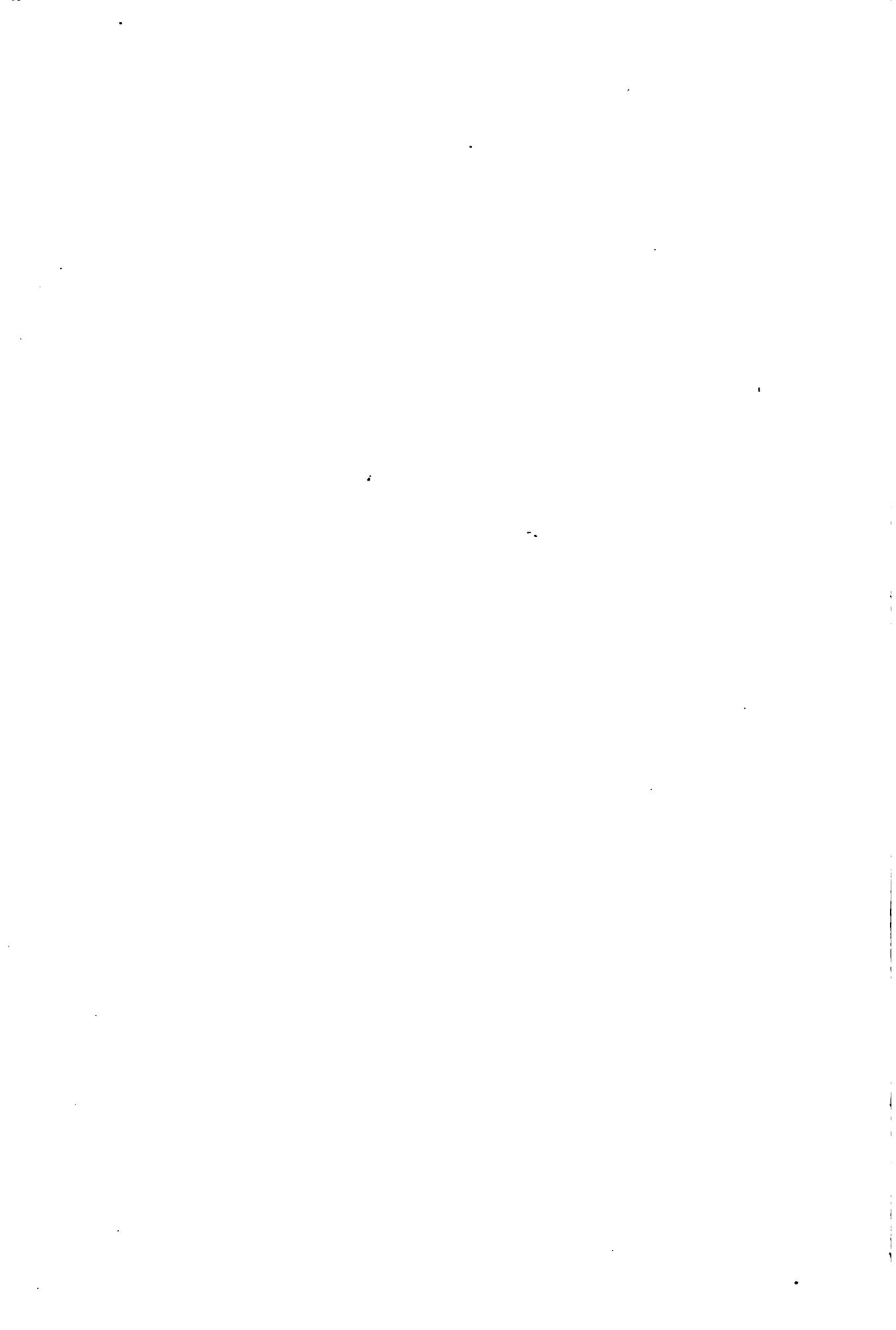


Entered in B. Reg.

MAN, SEAL, TUTTIENNT

*On the capital Crime by Satan,
in the relation of the Human Cycle Law.*

Under the superintendence of the Society for the Diffusion of Useful Knowledge





HENRI de la Tour d'Auvergne, Vicomte de Turenne, born September 16th, 1611, was the second son of the Duc de Bouillon, prince of Sedan, and of Elizabeth of Nassau, daughter of the celebrated William of Orange, to whose courage and talents the Netherlands mainly owed their deliverance from Spain. Both parents being zealous Calvinists, Turenne was of course brought up in the same faith. Soon after his father's death, the Duchess sent him, when he was not yet thirteen years old, into the Low Countries, to learn the art of war under his uncle, Maurice of Nassau, who commanded the troops of Holland in the protracted struggle between that country and Spain. Maurice held that there was no royal road to military skill, and placed his young relation in the ranks, as a volunteer, where for some time he served, enduring all hardships to which the common soldiers were exposed. In his second campaign he was promoted to the command of a company, which he retained for four years, distinguished by the admirable discipline of his men, by unceasing attention to the due performance of his own duty, and by his eagerness to witness, and become thoroughly acquainted with, every branch of service. In the year 1630, family circumstances rendered it expedient that he should return to France, where the court received him with distinction, and invested him with the command of a regiment.

Four years elapsed before Turenne had an opportunity of distinguishing himself in the service of his native country. His first laurels were reaped in 1634, at the siege of the strong fortress of La Motte, in Lorraine, where he headed the assault, and, by his skill and bravery, mainly contributed to its success. For this exploit he was raised at the early age of twenty-three to the rank of Marechal de Camp, the

second grade of military rank in France. In the following year, the breaking out of war between France and Austria opened a wider field of action. Turenne held a subordinate command in the army, which, under the Cardinal de la Valette, marched into Germany to support the Swedes, commanded by the Duke of Weimar. At first fortune smiled on the allies ; but, ere long, scarcity of provisions compelled them to a disastrous retreat over a ruined country, in the face of the enemy. On this occasion the young soldier's ability and disinterestedness were equally conspicuous. He sold his plate and equipage for the use of the army ; threw away his baggage to load the waggons with those stragglers who must otherwise have been abandoned ; and marched on foot, while he gave up his own horse to the relief of one who had fallen, exhausted by hunger and fatigue. These are the acts which win the attachment of soldiers, and Turenne was idolized by his.

Our limits will not allow of the relation of those campaigns in which the subject of this memoir filled a subordinate part. In 1637-8 he again served under La Valette, in Flanders and Germany, after which he was made Lieutenant-General, a rank not previously existing in France. The three following years he was employed in Italy and Savoy, and in 1642 made a campaign in Roussillon, under the eye of Louis XIII. In the spring of 1643, the King died ; and in the autumn of the same year, Turenne received from the Queen Mother and Regent, Anne of Austria, a Marshal's baton, the appropriate reward of his long and brilliant services. Four years a captain, four a colonel, three Marechal de Camp, five lieutenant-general, he had served in all stations from the ranks upwards, and distinguished himself in them not only by military talent, but by strict honour and trustworthiness, rare virtues in those turbulent times when men were familiar with civil war, and the great nobility were too powerful to be peaceful subjects.

Soon after his promotion, he was sent to Germany, to collect and reorganise the French army, which had been roughly handled at Duttlingen. It wanted rest, men, and money, and he settled it in good quarters, raised recruits, and pledged his own credit for the necessary sums. The effects of his exertions were soon seen. He arrived in Alsace, December, 1643, and in the following May was at the head of 10,000 men, well armed and equipped, with whom he felt strong enough to attack the Imperial army, and raise the siege of Fribourg. At that moment the glory which he hoped and was entitled to obtain, as the reward of five months' labour, was snatched from him by the arrival of the celebrated Prince de Condé, at that time Duc d'Enghien, to assume the command. The vexation which Turenne must have felt

was increased by the difference of age, for the Prince was ten years his junior, and of personal character. Condé was ardent and impetuous, and flushed by his brilliant victory at Rocroi the year before ; Turenne cool, calculating, and cautious, unwearied in preparing a certainty of success before-hand, yet prompt in striking when the decisive moment was come. The difference of their characters was exemplified upon this occasion. Merci, the Austrian commander, had taken up a strong position, which Turenne said could not be forced ; but at the same time pointed out the means of turning it. Condé differed from him, and the second in command was obliged to submit. On two successive days two bloody and unsuccessful assaults were made : on the third Turenne's advice was taken, and on the first demonstration of this change of plan Merci retreated. In the following year, ill supplied with every thing, and forced to separate his troops widely to obtain subsistence, he was attacked at Mariendal, and worsted by his old antagonist Merci. This, his first defeat, he felt severely : still he retained his position, and was again ready to meet the enemy, when he received positive orders from Mazarin to undertake nothing before the arrival of Condé. Zealous for his country and careless of personal slights, he marched without complaint under the command of his rival : and his magnanimity was rewarded at the battle of Nordlingen, in 1645, where the centre and right wing having failed in their attack, Turenne with the left wing broke the enemy's right, and falling on his centre in flank, threw it into utter confusion. For this service he received the most cordial and ample acknowledgments from Condé, both on the field, and in his despatches to the Queen Regent. Soon after, Condé, who was wounded in the battle, resigned his command into the hands of Turenne. The following campaigns of 1646-7-8 exhibited a series of successes, by means of which he drove the Duke of Bavaria from his dominions, and reduced the Emperor to seek for peace. This was concluded at Munster in 1648, and to Turenne's exertions the termination of the thirty years' war is mainly to be ascribed.

The repose of France was soon broken by civil war. Mazarin's administration, oppressive in all respects, but especially in fiscal matters, had produced no small discontent throughout the country, and especially in Paris ; where the parliament openly espoused the cause of the people against the minister, and were joined by several of the highest nobility, urged by various motives of private interest or personal pique. Among these were the Prince of Conti, the Duc de Longueville, and the Duc de Bouillon. Mazarin, in alarm, endeavoured to enlist the ambition of Turenne in his favour, by offering the

government of Alsace, and the hand of his own niece, as the price of his adherence to the court. The Viscount, pressed by both parties, avoided to declare his adhesion to either: but he unequivocally expressed his disapprobation of the Cardinal's proceedings, and, being superseded in his command, retired peaceably to Holland. There he remained till the convention of Ruel effected a hollow and insincere reconciliation between the court and one of the jarring parties of which the Fronde was composed. That reconciliation was soon broken by the sudden arrest of Condé, Conti, and the Duc de Longueville. Turenne then threw himself into the arms of the Fronde; urged partly by indignation at this act of violence, partly by a sympathy with the interests of his brother, the Duc de Bouillon; but more, it is said, by a devoted attachment to the Duchesse de Longueville, who turned the great soldier to her purposes, and laughed at his passion. He sold his plate; the Duchess sold her jewels: they concluded an alliance with Spain, and the Viscount was soon at the head of an army. But the heterogeneous mass of Frenchmen, Spaniards, and Germans, melted away during the first campaign; and Turenne, at the head of eight thousand men, found himself obliged to encounter the royal army, twenty thousand strong. In the battle which ensued, he distinguished his personal bravery in several desperate charges: but the disparity was too great; and this defeat of Rhetel was of serious consequence to the Fronde party. Convinced at last that his true interest lay rather on the side of the court, then managed by a woman and a priest, where he might be supreme in military matters, than in supporting the cause of an impetuous and self-willed leader, such as Condé, Turenne gladly listened to overtures of accommodation, and passed over to the support of the regency. His conduct in this war appears to be the most objectionable part of a long and, for that age, singularly honest life. The fault, however, seems to have been rather in espousing, than in abandoning, the cause of the Fronde. Many of that party were doubtless actuated by sincerely patriotic motives. Such, however, were not the motives of Turenne, nor of the nobility to whom he attached himself: and if, in returning to his allegiance, he followed the call of interest as decidedly as he had followed the call of passion in revolting, it was at least a recurrence to his former principle of loyalty, from which, in after-life, he never swerved.

The value of his services was soon made evident. Twice, at the head of very inferior troops, he checked Condé in the career of victory: and again compelled him to fight under the walls of Paris; where, in the celebrated battle of the Faubourg St. Antoine, the Prince and his

army narrowly escaped destruction. Finally, he re-established the court at Paris, and compelled Condé to quit the realm. These important events took place in one campaign of six months, in 1652.

In 1654 he again took the field against his former friend and commander, Condé, who had taken refuge in Spain, and now led a foreign army against his country. The most remarkable operation of the campaign was the raising the siege of Arras ; which the Spaniards had invested, according to the most approved fashion of the day, with a strong double line of circumvallation, within which the besieging army was supposed to be securely sheltered against the sallies of the garrison cooped up within, and the efforts of their friends from without. Turenne marched to the relief of the place. This could only be effected by forcing the enemy's entrenchments ; which were accordingly attacked, contrary to the opinion of his own officers, and carried at all points, despite the personal exertions of Condé. The Spaniards were forced to retreat. It is remarkable that Turenne, not long after, was himself defeated in precisely similar circumstances, under the walls of Valenciennes, round which he had drawn lines of circumvallation. Once more he found himself in the same position at Dunkirk. On this occasion he marched out of his lines to meet the enemy, rather than wait, and suffer them to choose their point of attack : and the celebrated battle of the Dunes or Sand-hills ensued, in which he gained a brilliant victory over the best Spanish troops, with Condé at their head. This took place in 1657. Dunkirk and the greater part of Flanders fell into the hands of the French in consequence ; and these successes led to the treaty of the Pyrenees, which terminated the war in 1658.

Turenne's signal services were appreciated and rewarded by the entire confidence both of the regency, and of Louis himself, after he attained his majority and took the reins of state into his own hands. At the King's marriage, in 1660, he was created Marshal-General of the French armies, with the significant words, " Il ne tient qu'a vous que ce soit davantage." The monarch is supposed to have meditated the revival of the high dignity of Constable of France, which could not be held by a Protestant. If this were so, it was a tempting bribe ; but it failed. Covetousness was no part of Turenne's character ; and for ambition, his calm and strong mind could not but see that a dignity won by such unworthy means would not elevate him in men's eyes. We would willingly attribute his conduct to a higher principle ; but there is reason to believe that henceforth he rather sought to be converted from the strict tenets of Calvinism in which he had been

brought up. It is at least certain, from his correspondence, that about this time he applied himself to theological studies, with which an imperfect education, and a life spent in camps, had little familiarized him ; and that in the year 1668 he solemnly renounced the Protestant church. However, he asked and received nothing for himself, and was refused one trifling favour which he requested for his nephew : and perhaps the most fair and probable explanation of his conversion is, that his profession of Calvinism had been habitual and nominal, not founded upon inquiry and conviction ; and that in becoming a convert to Catholicism, he had little to give up, while his mind was strongly biassed in favour of the fashionable and established creed.

When war broke out afresh between France and Spain, in 1667, Louis XIV. made his first campaign under Turenne's guidance, and gained possession of nearly the whole of Flanders. In 1672, when Louis resolved to undertake in person the conquest of Holland, he again placed the command, under himself, in Turenne's hands, and disgraced several marshals who refused to receive orders from the Viscount, considering themselves his equals in military rank. How Le Grand Monarque forced the passage of the Rhine when there was no army to oppose him, and conquered city after city, till he was stopped by inundations, under the walls of Amsterdam, has been said and sung by his flatterers ; and need not be repeated here. But after the King had left the army, when the Princes of Germany came to the assistance of Holland, and her affairs took a more favourable turn under the able guidance of the Prince of Orange, a wider field was offered for the display of Turenne's talents. In the campaign of 1673 he drove the Elector of Brandenburg, who had come to the assistance of the Dutch, back to Berlin, and compelled him to negotiate for peace. In the same year he was opposed, for the first time, to the Imperial General Montecuculi, celebrated for his military writings, as well as for his exploits in the field. The meeting of these two great generals produced no decisive results.

Turenne returned to Paris in the winter, and was received with the most flattering marks of favour. On the approach of spring, he was sent back to take command of the French army in Alsace, which, amounting to no more than ten thousand men, was pressed by a powerful confederation of the troops of the empire, and those of Brandenburg, once again in the field. Turenne set himself to beat the allies in detail, before they could form a junction. He passed the Rhine, marched forty French leagues in four days, and came up with the Imperialists, under the Duke of Lorraine, at Sintzheim. They occupied

a strong position, their wings resting on mountains; their centre protected by a river and a fortified town. Turenne hesitated: it seemed rash to attack; but a victory was needful before the combination of the two armies should render their force irresistible, and he commanded the best troops of France. The event justified his confidence. Every post was carried sword in hand. The Marshal had his horse killed under him, and was slightly wounded. To the officers, who crowded round him with congratulations, he replied, with one of those short and happy speeches which tell upon an army more than the most laboured harangues, "With troops like you, gentlemen, a man ought to attack boldly, for he is sure to conquer." The beaten army fell back behind the Neckar, where they effected a junction with the troops of Brandenburg: but they dared attempt nothing further, and left the Palatinate in the quiet possession of Turenne. Under his eye, and, as it appears from his own letters, at his express recommendation, as a matter of policy, that wretched country was laid waste to a deplorable extent. This transaction went far beyond the ordinary license of war, and excited general indignation even in that unscrupulous age. It will ever be remembered as a foul stain upon the character of the general who executed, and of the king and minister who ordered or consented to it.

Having carried fire and sword through that part of the Palatinate which lay upon the right or German bank of the Rhine, he crossed that river. But the Imperial troops, reinforced by the Saxons and Hessians to the amount of sixty thousand men, pressed him hard: and it seemed impossible to keep the field against so great a disparity of force; his own troops not amounting to more than twenty thousand. He retreated into Lorraine, abandoning the fertile plains of Alsace to the enemy, led his army behind the Vosges mountains, and crossing them by unfrequented routes, surprised the enemy at Colmar, beat him at Mulhausen and Turkheim, and forced him to recross the Rhine. This is esteemed the most brilliant of Turenne's campaigns, and it was conceived and conducted with the greater boldness, being in opposition to the orders of Louvois. "I know," he wrote to that minister, in remonstrating, and indeed refusing to follow his directions, "I know the strength of the Imperialists, their generals, and the country in which we are. I take all upon myself, and charge myself with whatever may occur."

Returning to Paris at the end of the campaign, his journey through France resembled a triumphal progress; such was the popular enthusiasm in his favour. Not less flattering was his reception by the King,

whose undeviating regard and confidence, undimmed by jealousy or envy, is creditable alike to the monarch and to his faithful subject. At this time Turenne, it is said, had serious thoughts of retiring to a convent, and was induced only by the earnest remonstrances of the King, and his representations of the critical state of France, to resume his command. Returning to the Upper Rhine, he was again opposed to Montecuculi. For two months the resources and well-matched skill of the rival captains were displayed in a series of marches and counter-marches, in which every movement was so well foreseen and guarded against, that no opportunity occurred for coming to action with advantage to either side. At last the art of Turenne appeared to prevail; when, not many minutes after he had expressed the full belief that victory was in his grasp, a cannon-ball struck him while engaged in reconnoitring the enemy's position, previous to giving battle, and he fell dead from his horse, July 27th, 1675. The same shot carried off the arm of St. Hilaire, commander-in-chief of the artillery. "Weep not for me," said the brave soldier to his son, "it is for that great man that we ought to weep."

His subordinates possessed neither the talents requisite to follow up his plans, nor the confidence of the troops, who perceived their hesitation, and were eager to avenge the death of their beloved general. "Loose the piebald," so they named Turenne's horse, was the cry; "he will lead us on." But those on whom the command devolved thought of nothing less than of attacking the enemy; and after holding a hurried council of war, retreated in all haste across the Rhine.

The Swabian peasants let the spot where he fell lie fallow for many years, and carefully preserved a tree under which he had been sitting just before. Strange that the people who had suffered so much at his hands, should regard his memory with such respect.

The character of Turenne was more remarkable for solidity than for brilliancy. Many generals may have been better qualified to complete a campaign by one decisive blow; few probably have laid the scheme of a campaign with more judgment, or shown more skill and patience in carrying their plans into effect. And it is remarkable that, contrary to general experience, he became much more enterprising in advanced years than he had been in youth. Of that impetuous spirit, which sometimes carries men to success where caution would have hesitated and failed, he possessed little. In his earlier years he seldom ventured to give battle, except where victory was nearly certain: but a course of victory inspired confidence, and trained by long practice to distinguish the difficult from the impossible, he adopted in his later campaigns

bolder style of tactics than had seemed congenial to his original temper. In this respect he offered a remarkable contrast to his rival in fame, Condé, who, celebrated in early life for the headlong valour, even to rashness, of his enterprises, became in old age prudent almost to timidity. Equally calm in success or in defeat, Turenne was always ready to prosecute the one, or to repair the other. And he carried the same temper into private life, where he was distinguished for the dignity with which he avoided quarrels, under circumstances in which lesser men would have found it hard to do so, without incurring the reproach of cowardice. Nor must we pass over his thorough honesty and disinterestedness in pecuniary matters ; a quality more rare in a great man then than it is now.

In 1653 he married the daughter of the Duc de la Force. She died in 1666, without leaving children.

Turenne composed memoirs of his own life, which are published in the Life of him by the Chevalier Ramsay. There is also a collection of his Military Maxims, by Captain Williamson. In 1782 Grimoard published his 'Collection des Memoirs du Marechal de Turenne.' Deschamps, an officer who served under him, wrote a full account of his two last campaigns ; and the history of his four last campaigns has been published under the name of Beaurain. We may also refer the reader for the history of these times to Voltaire, Siècle de Louis XIV.

French Cavalier of the seventeenth century.

THIS excellent and accomplished person was one of those who do honour to high birth and ample fortune, by employing them, not as the means of selfish gratification or personal aggrandisement, but in the furtherance of every useful pursuit, and every benevolent purpose. By the lover of science he is honoured as one of the first and most successful cultivators of experimental philosophy ; to the Christian his memory is endeared, as that of one, who, in the most licentious period of English history, showed a rare example of religion and virtue in exalted station, and was an early and zealous promoter of the diffusion of the Scriptures in foreign lands.

Robert Boyle was the youngest son but one of a statesman eminent in the successive reigns of Elizabeth, and the first James and Charles ; and well known in Ireland by the honourable title of the Great Earl of Cork. He has left an unfinished sketch of his own early life, in which he assumes the name of Philaretus, a lover of virtue ; and speaks of his childhood as characterized by two things, a more than usual inclination to study, and a rigid observance of truth in all things. He was born in Ireland, January 25, 1626-7. In his ninth year he was sent, with his elder brother Francis, to Eton, where he spent between three and four years : in the early part of which, under the guidance of an able and judicious tutor, he made great progress both in the acquisition of knowledge, and in forming habits of accurate and diligent inquiry. But his studies were interrupted by a severe ague ; and while recovering from that disorder he contracted a habit of desultory reading, which it afterwards cost him some pains to conquer by a laborious course of mathematical calculations. During his abode at Eton several remarkable escapes from imminent peril occurred to him, upon which, in after-life, he looked back with reverential gratitude, and with the full conviction that the direct hand of an overruling providence was to be traced in them.





Designed by R. Woodward.

ROBERT BOYLE.

*From an original Lecture
on the Preparation of Cold Water*

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Towards the close of 1637, as it should seem, his father, who had purchased the manor of Stalbridge, in Dorsetshire, took him home. In October, 1638, he was sent abroad, under the charge of a governor, with his brother Francis. They visited France, Switzerland, and Italy; and Philaretus's narrative of his travels is not without interest. The only incident which we shall mention as occurring during this period, is one which may be thought by many scarcely worthy of notice. Boyle himself used to speak of it as the most considerable accident of his whole life; and for its influence upon his life it ought not to be omitted. While staying at Geneva, he was waked in the night by a thunder-storm of remarkable violence. Taken unprepared and startled, it struck him that the day of judgment was at hand; "whereupon," to use his own words, "the consideration of his unpreparedness to welcome it, and the hideousness of being surprised by it in an unfit condition, made him resolve and vow, that if his fears that night were disappointed, all further additions to his life should be more religiously and watchfully employed." He has been spoken of as being a sceptic before this sudden conversion. This does not appear from his own account, farther than as any boy of fourteen may be so called, who has never taken the trouble fully to convince himself of those truths which he professes to believe. On the breaking out of the rebellion in 1642, the troubled state of England, and the death of the Earl of Cork, involved the brothers in considerable pecuniary difficulties. They returned to England in 1644, and Robert, after a short delay, took possession of the manor of Stalbridge, which, with a considerable property in Ireland, had been bequeathed to him by his father. By the interest of his brother and sister, Lord Broghill and Lady Ranelagh, who were on good terms with the ruling party, he obtained protections for his property, and for the next six years made Stalbridge his principal abode. This portion of his life was chiefly spent in the study of ethical and natural philosophy; and his name began already to be respected among the men of science of the day.

In 1652 he went to Ireland to look after his property, and spent the greater part of the next two years there. Returning to England in 1654, he settled at Oxford. That which especially directed him to this place, besides its being generally suited to the prosecution of all his literary and philosophical pursuits, was the presence of that knot of learned men, from whom the Royal Society took its rise. It consisted of a few only, but those eminent; Bishop Wilkins, Wallis, Ward, Wren, and others, who used to meet for the purpose of con-

ferring upon philosophical subjects, and mutually communicating and reasoning on their respective experiments and discoveries.

At the restoration, Boyle was treated with great respect by the King ; and was strongly pressed to enter the church by Lord Clarendon, who thought that his high birth, eminent learning, and exemplary character might be of material service to the revived establishment. After serious consideration he declined the proposal, upon two accounts, as he told Burnet ; first, because he thought that while he performed no ecclesiastical duties, and received no pay, his testimony in favour of religion would carry more weight ; secondly, because he felt no especial vocation to take holy orders, which he considered indispensable to the proper entering into that service.

From this time forwards, Boyle's life is not much more than the history of his works. It passed in an even current of tranquil happiness, and diligent employment, little broken, except by illness, from which he was a great sufferer. At an early age, he was attacked by the stone, and continued through life subject to paroxysms of that dreadful disease : and in 1670, he was afflicted with a severe paralytic complaint, from which he fortunately recovered without sustaining any mental injury. On the incorporation of the Royal Society in 1660, he was named as one of the council, in the charter ; and as he had been one of the original members, so through his life he continued to publish his shorter treatises in their Transactions. In 1662 he was appointed by the King, Governor of the Corporation for propagating the Gospel in New England. The diffusion of Christianity was a favourite subject of exertion with him through life. For the sole purpose of exerting a more effectual influence in introducing it into India, he became a Director of the East India Company ; and, at his own expense, caused the Gospels and Acts to be translated into Malay, and five hundred copies to be printed and sent abroad. He also caused a translation of the Bible into Irish to be made and published, at an expense of £700 ; and bore great part of the expense of a similar undertaking in the Welsh language. To other works of the same sort he was a liberal contributor : and as in speech and writing he was a zealous, yet temperate advocate of religion, so he showed his sincerity by a ready extension of his ample funds to all objects which tended to promote the religious welfare of his fellow-creatures.

In the year 1666 he took up his abode in London, where he continued for the remainder of his life. We have little more to state of his personal history. He was elected President of the Royal Society in 1680, but declined that well-earned honour, as having, in his own

words, "a great (and perhaps peculiar) tenderness in point of oaths." In the course of 1688 he began to feel his strength decline, and set himself seriously to complete those of his undertakings which he judged most important, and to arrange such of his papers as required to be prepared for publication. It gives us rather a curious notion of the scientific morality of the day, to learn that he had been a great sufferer by the stealing of his papers. Such at least was his own belief, hinted in a public advertisement, and expressed more fully in his private communications. His manuscript books disappeared in an incomprehensible way, insomuch that he resolved to write upon loose sheets of paper, "that the ignorance of the coherence might keep men from thinking them worth stealing." Notwithstanding he complains of numerous losses, and expresses a determination to secure the "remaining part of his writings, especially those that contain most matters of fact, by sending them maimed and unfinished, as they come to hand, to the press." A still more serious loss occurred to him through the carelessness of a servant, who broke a bottle of vitriol over a box of manuscripts prepared for publication, by which a large part of them were utterly ruined. To these misfortunes, the non-appearance of many promised works, and the imperfect state of others, is to be ascribed. During the years 1689-90, he gradually withdrew himself more and more from his other employments, and from the claims of society, to devote himself entirely to the preparation of his papers. He died, unmarried, December 31, 1691, aged sixty-five years, and was buried in the chancel of St. Martin's-in-the-fields.

To give merely the dates and titles of Boyle's several publications, would occupy several pages. They are collected in five volumes folio, by Dr. Birch, and amount in number to ninety-seven. The philosophical works have been abridged in three volumes quarto by Dr. Shaw, who has prefixed to his edition a character of the author, and of his works. From 1660 to the end of his life, every year brought fresh evidence of his close application to science, and the versatility of his talents, and the extent of his knowledge. His attention was directed to chemistry, mathematics, mechanics, medicine, anatomy; but more especially to the former, in its many branches: and though he is not altogether free from the reproach of credulity, and appears not to have entirely freed himself from the delusions of the alchymists, still he did more towards overthrowing their mischievous doctrines, and establishing his favourite science on a firm foundation, than any man; and his indefatigable diligence in inquiry, and unquestioned honesty of relation, entitle him to a very high place among the fathers of modern

chemistry. On this point we may quote the testimony of the celebrated Boerhaave, (Chemistry, vol. i. p. 55,) who says, that among the writers who have treated of Chemistry with a view to natural philosophy and medicine, we may reckon among the chief, the Hon. Robert Boyle. Redi also, in his ‘Experimenta Naturalia,’ affirms that in experimental philosophy there never was any man so distinguished, and that perhaps there never will be his equal in discovering natural causes.

It is, however, as the father of pneumatic philosophy that his scientific fame is most securely based. To the invention of the air-pump he possesses no claim, an instrument of that sort having been exhibited in 1654 by Otto Guericke of Magdeburg : but his improvements, and his well-combined and ingenious experiments first made that instrument of value, and proved the elasticity of the air. These were given to the world in his first published, and perhaps his most important work, entitled, ‘New Experiments upon the Spring of the Air.’

A considerable portion of Boyle’s works is occupied by religious treatises. Two of these, ‘Seraphic Love,’ and a ‘Free Discourse against Swearing,’ were written before he had reached the age of twenty ; though not published for many years after. He established by his will an annual lecture, “in proof of the Christian religion against notorious infidels.” Bentley was the first preacher on this foundation.

Boyle’s funeral sermon was preached by Bishop Burnet, who had been under some obligation to him for assistance in publishing his History of the Reformation. The sermon has been considered one of Burnet’s best ; and it has this advantage, that funeral panegyric has seldom been more sincerely and honestly bestowed. We conclude by quoting one or two passages, which illustrate the beauty of Boyle’s private character. “He had brought his mind to such a freedom that he was not apt to be imposed on ; and his modesty was such that he did not dictate to others ; but proposed his own sense with a due and decent distrust, and was ever very ready to hearken to what was suggested to him by others. When he differed from any, he expressed himself in so humble and obliging a way that he never treated things or persons with neglect, and I never heard that he offended any one person in his whole life by any part of his demeanour. For if at any time he saw cause to speak roundly to any, it was never in passion, or with any reproachful or indecent expressions. And as he was careful to give those who conversed with him no cause or colour for displeasure, he was yet more careful of those who were absent, never

to speak ill of any, in which he was the exactest man I ever knew. If the discourse turned to be hard on any, he was presently silent; and if the subject was too long dwelt on, he would at last interpose, and, between reproof and railery, divert it.

“ He was exactly civil, even to ceremony, and though he felt his easiness of access, and the desires of many, all strangers in particular, to be much with him, made great waste of his time ; yet, as he was severe in that, not to be denied when he was at home, so he said he knew the heart of a stranger, and how much eased his own had been, while travelling, if admitted to the conversation of those he desired to see ; therefore he thought his obligation to strangers was more than bare civility ; it was a piece of religious charity in him.

“ He had, for almost forty years, laboured under such a feebleness of body, and such lowness of strength and spirits, that it will appear a surprising thing to imagine how it was possible for him to read, to meditate, to try experiments, and write as he did. He bore all his infirmities, and some sharp pains, with the decency and submission that became a Christian and philosopher. He had about him all that unaffected neglect of pomp in clothes, lodging, furniture, and equipage, which agreed with his grave and serious course of life. He was advised to a very ungrateful simplicity of diet, which, by all appearance, was that which preserved him so long beyond all men’s expectation. This he observed so strictly, that in the course of above thirty years he neither ate nor drank to gratify the varieties of appetite, but merely to support nature ; and was so regular in it, that he never once transgressed the rule, measure and kind that were prescribed him. * * *

“ His knowledge was of so vast an extent, that were it not for the variety of vouchers in their several sort, I should be afraid to say all I know. He carried the study of Hebrew very far into the Rabbinical writings and the other Oriental languages. He had read so much out of the Fathers, that he had formed out of it a clear judgment of all the eminent ones. He had read a vast deal on the Scriptures, and had gone very nicely through the whole controversies on religion, and was a true master of the whole body of divinity. He read the whole compass of the mathematical sciences ; and though he did not set himself to spring any new game, yet he knew even the abstrusest parts of geometry. Geography, in the several parts of it that related to navigation or travelling, history, and books of travels, were his diversions. He went very nicely through all the parts of physic ; only the tenderness of his nature made him less able to endure the exactness of anatomical dissections, especially of living animals, though he

knew them to be most instructive. But for the history of nature, ancient or modern, of the productions of all countries, of the virtues and improvements of plants, of ores and minerals, and all the varieties that are in them in different climates, he was by much, by very much, the readiest and perfectest I ever knew, in the greatest compass, and with the truest exactness. This put him in the way of making that vast variety of experiments, beyond any man, as far as we know, that ever lived. And in these, as he made a great progress in new discoveries, so he used so nice a strictness, and delivered them with so scrupulous a truth, that all who have examined them, may find how safely the world may depend upon them. But his peculiar and favourite study was chemistry, in which he engaged with none of those ravenous and ambitious designs that draw many into them. His design was only to find out Nature, to see into what principles things might be resolved, and of what they were compounded, and to prepare good medicaments for the bodies of men. He spent neither his time nor his fortune upon the vain pursuits of high promises and pretensions. He always kept himself within the compass that his estate might well bear. And as he made chemistry much the better for his dealing with it, so he never made himself either the worse, or the poorer for it."

It would be easy to multiply testimonies of the high reputation in which Boyle was held: indeed the reader will find numerous instances collected in the article Boyle, in Dr. Kippis's *Biographia Britannica*, the perusal of which will amply gratify the reader's curiosity. Still more detailed accounts of Boyle's life and character will be found in other works to which we have already referred, especially in Dr. Birch's *Life*.



MR. ISAAC NEWTON.

*On the original Cause of that Power
in the Universe of moving Matter*

TRANSLATED FROM THE ORIGINAL ENGLISH





ISAAC NEWTON was born on Christmas-day, 1642 (O. S.), at Woolsthorpe, a hamlet in the parish of Colsterworth, in Lincolnshire. In that spot his family had possessed a small estate for more than a hundred years; and his father died there a few months after his marriage to Harriet Ayscough, and before the birth of his son. The widow soon married again, and removed to North Witham, the rectory of her second husband, Mr. Smith, leaving her son, a weakly child who had not been expected to live through the earliest infancy, under the charge of her mother.

Newton's education was commenced at the parish school, and at the age of twelve he was sent to Grantham for classical instruction. At first he was idle, but soon rose to the head of the school. The peculiar bent of his mind soon showed itself in his recreations. He was fond of drawing, and sometimes wrote verses; but he chiefly amused himself with mechanical contrivances. Among these was a model of a wind-mill, turned either by the wind, or by a mouse enclosed in it, which he called the miller; a mechanical carriage moved by the person who sat in it; and a water-clock, which was long used in the family of Mr. Clarke, an apothecary, with whom he boarded at Grantham. This was not his only method of measuring time: the house at Woolsthorpe, whither he returned at the age of fifteen, still contains dials made by him during his residence there.

Mr. Smith died in 1656, and his widow then returned to Woolsthorpe with her three children by her second marriage. She brought Newton himself also thither, in the hope that he might be useful in the management of the farm. This expectation was fortunately disappointed. When sent to Grantham on business, he used to leave its

execution to the servant who accompanied him, and passed his time in reading, sometimes by the way-side, sometimes at the house of Mr. Clark. His mother no longer opposed the evident tendency of his disposition. He returned to school at Grantham, and was removed thence in his eighteenth year to Trinity College, Cambridge.

The 5th of June, 1660, was the day of his admission as a sizer into that distinguished society. He applied himself eagerly to the study of mathematics, and mastered its difficulties with an ease and rapidity which he was afterwards inclined almost to regret, from an opinion that a closer attention to its elementary parts would have improved the elegance of his own methods of demonstration. In 1664 he became a scholar of his college, and in 1667 was elected to a fellowship, which he retained beyond the regular time of its expiration in 1675, by a special dispensation authorizing him to hold it without taking orders.

It is necessary to return to an earlier date, to trace the series of Newton's discoveries. This is not the occasion for a minute enumeration of them, or for any elaborate discussion of their value or explanation of their principles; but their history and succession require some notice. The earliest appear to have related to pure mathematics. The study of Dr. Wallis's works led him to investigate certain properties of series, and this course of research soon conducted him to the celebrated Binomial Theorem. The exact date of his invention of the method of Fluxions is not known; but it was anterior to 1666, when the breaking out of the plague obliged him for a time to quit Cambridge, and consequently when he was only about twenty-three years old.

This change of residence interrupted his optical researches, in which he had already laid the foundation of his great discoveries. He had decomposed light into the coloured rays of which it is compounded, and having thus ascertained the principal cause of the confusion of the images formed by refraction, he had turned his attention to the construction of telescopes which should act by reflection, and be free from this evil. He had not, however, overcome the practical difficulties of his undertaking, when his retreat from Cambridge for a time stopped this train of experiment and invention.

On quitting Cambridge Newton retired to Woolsthorpe, where his mind was principally employed upon the system of the world. The theory of Copernicus and the discoveries of Galileo and Kepler had at length furnished the materials from which the true system was to be deduced. It was indeed all involved in Kepler's celebrated laws. The equable description of areas proved the existence of a central force; the elliptical form of the planetary orbits, and the relation

between their magnitude and the time occupied in describing them, ascertained the law of its variation. But no one had arisen to demonstrate these necessary consequences, or even to conjecture the universal principle from which they were derived. The existence of a central force had been surmised, and the law of its action guessed at; but no proof had been given of either, and little attention had been awakened by the conjecture.

Newton's discovery appears to have been quite independent of any speculations of his predecessors. The circumstances attending it are well known: the very spot in which it first dawned upon him is ascertained. He was sitting in the garden at Woolsthorpe, when the fall of an apple called his attention to the force which caused its descent, to the probable limits of its action and law of its operation. Its power was not sensibly diminished at any distance at which experiments had been made: might it not then extend to the moon and guide that luminary in her orbit? It was certain that her motion was regulated in the same manner as that of the planets round the sun: if, therefore, the law of the sun's action could be ascertained, that by which the earth acted would also be found by analogy. Newton, therefore, proceeded to ascertain by calculation from the known elements of the planetary orbits, the law of the sun's action. The great experiment remained: the trial whether the moon's motions showed the force acting upon her to correspond with the theoretical amount of terrestrial gravity at her distance. The result was disappointment. The trial was to be made by ascertaining the exact space by which the earth's action turned the moon aside from her course in a given time. This depended on her actual distance from the earth, which was only known by comparison with the earth's diameter. The received estimate of that quantity was very erroneous; it proceeded on the supposition that a degree of latitude was only sixty English miles, nearly a seventh part less than its actual length. The calculation of the moon's distance and of the space described by her, gave results involved in the same proportion of error; and thus the space actually described appeared to be a seventh part less than that which corresponded to the theory. It was not Newton's habit to force the results of experiments into conformity with hypothesis. He could not, indeed, abandon his leading idea, which rested, in the case of the planetary motions, on something very nearly amounting to demonstration. But it seemed that some modification was required before it could be applied to the moon's motion, and no satisfactory solution of the difficulty occurred. The scheme therefore was incomplete, and, in conformity

with his constant habit of producing nothing till it was fully matured, Newton kept it undivulged for many years.

On his return to Cambridge Newton again applied himself to the construction of reflecting telescopes, and succeeded in effecting it in 1668. In the following year Dr. Barrow resigned in his favour the Lucasian professorship of mathematics, which Newton continued to hold till the year 1703, when Whiston, who had been his deputy from 1699, succeeded him in the chair. On January 11, 1672, Newton was elected a Fellow of the Royal Society. He was then best known by the invention of the reflecting telescope; but immediately on his election he communicated to the Society the particulars of his theory of light, on which he had already delivered three courses of lectures at Cambridge, and they were shortly afterwards published in the *Philosophical Transactions*.

It is impossible here to state the various phenomena of light and colours which were first detected and explained by Newton. They entirely changed the science of optics, and every advance which has since been made in it has only added to the importance and confirmed the value of his observations. The success of the new theory was complete. Newton, however, was much vexed and harassed by the discussions which it occasioned. The annoyance which he thus experienced made him even think of abandoning the pursuit of science, and although it failed to withdraw him from the studies to which he was devoted, it confirmed him in his unwillingness to publish their results.

The next few years of Newton's life were not marked by any remarkable events. They were passed almost entirely at Cambridge, in the prosecution of the researches in which he was engaged. The most important incident was the communication to Oldenburgh, and, through him, to Leibnitz, that he possessed a method of determining maxima and minima, of drawing tangents, and performing other difficult mathematical operations. This was the method of fluxions, but he did not announce its name or its processes. Leibnitz, in return, explained to him the principles and processes of the Differential Calculus. This correspondence took place in the years 1676 and 1677: but the method of fluxions had been communicated to Barrow and Collins as early as 1669, in a tract, first printed in 1711, under the title 'Analysis per equationes numero terminorum infinitas.' Newton had indeed intended to publish his discovery as an introduction to an edition of Kinckhuysen's Algebra, which he undertook to prepare in 1672; but the fear of controversy prevented him, and the method of fluxions was not publicly announced till the appearance of the Prin-

cipia in 1687. The edition of Kinckhuysen's treatise did not appear; but the same year, 1672, was marked by Newton's editing the Geography of Varenius.

In 1679 Newton's attention was again called to the theory of gravitation, and by a fuller investigation of the conditions of elliptical motion, he was confirmed in the opinion that the phenomena of the planets were referable to an attractive force in the sun, of which the intensity varied in the inverse proportion of the square of the distance. The difficulty about the amount of the moon's motion remained, but it was shortly to be removed. In 1679 Picard effected a new measurement of a degree of the earth's surface, and Newton heard of the result at a meeting of the Royal Society in June, 1682. He immediately returned home to repeat his former calculation with these new data. Every step of the process made it more probable that the discrepancy which had so long perplexed him would wholly disappear: and so great was his excitement at the prospect of entire success that he was unable to proceed with the calculation, and intrusted its completion to a friend. The triumph was perfect, and he found the theory of his youth sufficient to explain all the great phenomena of nature.

From this time Newton devoted unremitting attention to the development of his system, and a period of nearly two years was entirely absorbed by it. In 1684 the outline of the mighty work was finished; yet it is likely that it would still have remained unknown, had not Halley, who was himself on the track of some part of the discovery, gone to Cambridge in August of that year to consult Newton about some difficulties he had met with. Newton communicated to him a treatise *De Motu Corporum*, which afterwards, with some additions, formed the first two books of the *Principia*. Even then Halley found it difficult to persuade him to communicate the treatise to the Royal Society, but he finally did so in April, 1686, with a desire that it should not immediately be published, as there were yet many things to complete. Hooke, whose unwearied ingenuity had guessed at the true law of gravity, immediately claimed to himself the honour of the discovery; how unjustly it is needless to say, for the merit consisted not in the conjecture but the demonstration. Newton was inclined in consequence to prevent the publication of the work, or at least of the third part, *De Mundi Systemate*, in which the mathematical conclusions of the former books were applied to the system of the universe. Happily his reluctance was overcome, and the whole work was published in May, 1687. Its doctrines were too novel and surprising to meet with immediate assent; but the illustrious author at once received

the tribute of admiration for the boldness which had formed, and the skill which had developed his theory, and he lived to see it become the common philosophical creed of all nations.

We next find Newton acting in a very different character. James II. had insulted the University of Cambridge by a requisition to admit a Benedictine monk to the degree of Master of Arts without taking the oaths enjoined by the constitution of the University. The mandate was disobeyed; and the Vice-Chancellor was summoned before the Ecclesiastical Commission to answer for the contempt. Nine delegates, of whom Newton was one, were appointed by the University to defend their proceedings; and their exertions were successful. He was soon after elected to the Convention Parliament as member for the University of Cambridge. That parliament was dissolved in February, 1690, and Newton, who was not a candidate for a seat in the one which succeeded it, returned to Cambridge, where he continued to reside for some years, notwithstanding the efforts of Locke, and some other distinguished persons with whom he had become acquainted in London, to fix him permanently in the metropolis.

During this time he continued to be occupied with philosophical research, and with scientific and literary correspondence. Chemical investigations appear to have engaged much of his time; but the principal results of his studies were lost to the world by a fire in his chambers about the year 1692. The consequences of this accident have been very differently related. According to one version, a favourite dog, called Diamond, caused the mischief, and the story has been often told, that Newton was only provoked, by the loss of the labour of years, to the exclamation, "Oh, Diamond! Diamond! thou little knowest the mischief thou hast done." Another, and probably a better authenticated account, represents the disappointment as preying deeply on his spirits for at least a month from the occurrence.

We have more means of tracing Newton's other pursuits about this time. History, chronology, and divinity were his favourite relaxations from science, and his reputation stood high as a proficient in these studies. In 1690 he communicated to Locke his 'Historical account of two notable corruptions of the Scriptures,' which was first published long after his death. About the same time he was engaged in those researches which were afterwards embodied in his Observations on the Prophecies: and in December, 1692, he was in correspondence with Bentley on the application of his own system to the support of natural theology.

During the latter part of 1692 and the beginning of 1693 Newton's health was considerably impaired, and he laboured in the summer under some epidemic disorder. It is not likely that the precise character or amount of his indisposition will ever be discovered ; but it seems, though the opinion has been much controverted, that for a short time it affected his understanding, and that in September, 1693, he was not in the full possession of his mental faculties. The disease was soon removed, and there is no reason to suppose that it ever recurred. But the course of his life was changed ; and from this time forward he devoted himself chiefly to the completion of his former works, and abstained from any new career of continued research.

His time indeed was less at his own disposal than it had been. In 1696, Mr. Montague, the Chancellor of the Exchequer, an early friend of Newton, appointed him to the Wardenship of the Mint, and in 1699 he was raised to the office of Master. He removed to London, and was much occupied, especially during the new coinage in 1696 and 1697, with the duties of his office. Still he found time to superintend the editions of his earlier works, which successively appeared with very material additions and improvements. The great work on Optics appeared for the first time in a complete form in 1704, after the death of Hooke had freed Newton from the fear of new controversies. It was accompanied by some of his earlier mathematical treatises ; and contained also, in addition to the principal subject of the work, suggestions on a variety of subjects of the highest philosophical interest, embodied in the shape of queries. Among these is to be found the first suggestion of the polarity of light ; and we may mention at the same time, although they occur in a different part of the work, the remarkable conjectures, since verified, of the combustible nature of the diamond, and the existence of an inflammable principle in water.
The second edition of the Principia appeared under the care of Cotes in 1713, after having been the subject of correspondence between Newton and his editor for nearly four years. Dr. Pemberton published a third edition in 1725, and he frequently communicated about the work with Newton who was then eighty-two years old.

These were the chief scientific employments of Newton's latter life : and it is not necessary to particularize all its minor details. In 1712 he made some improvements in his Arithmetica Universalis, a work containing his algebraical discoveries, of which Whiston had surreptitiously published an edition in 1707. It is also worthy of remark that at the beginning of the year 1697, John Bernoulli addressed two problems as a challenge to the mathematicians of Europe, and that

Leibnitz in 1716 made a similar appeal to the English analysts; and that Newton in each case undertook and succeeded in the investigation.

This enumeration of Newton's philosophical employments has far outrun the order of time. After his return to London, compliments and honours flowed in rapidly upon him. In 1699 he was elected one of the first foreign associates of the Académie des Sciences at Paris; and in 1701 he was a second time returned to Parliament by the University of Cambridge. He did not, however, long retain his seat. At the election in 1705 he was at the bottom of the poll, and he does not appear again to have been a candidate. In 1703 he was chosen President of the Royal Society, and held that office till his death. In 1705 he was knighted by Queen Anne upon her visit to Cambridge.

Newton's life in London was one of much dignity and comfort. He was courted by the distinguished of all ranks, and particularly by the Princess of Wales, who derived much pleasure from her intercourse both with him and Leibnitz. His domestic establishment was liberal, and was superintended during great part of his time by his niece, Mrs. Barton, a woman of much beauty and talent, who married Mr. Conduitt, his assistant and successor at the Mint. Newton's liberality was almost boundless, yet he died rich.

The only material drawback to Newton's enjoyment during this portion of his life, seems to have arisen from controversies as to the history and originality of his discoveries; a molestation to which his slowness to publish them very naturally exposed him. There was a long and angry dispute with Leibnitz about the priority of fluxions or the differential calculus; and, after the fashion of most disputes, it diverged widely from the original ground, and it became necessary for Newton to vindicate the religious and metaphysical tendencies of his greatest works. His success was complete on all points. Leibnitz does not appear to have been acquainted with the method of fluxions at the time of his own discovery, but there is now no doubt of Newton's having preceded him by some years; and the attacks made on the tendency of Newton's discoveries have long been remembered only as disgracing their author. But such discussions had always been distasteful to Newton, and this controversy, which was conducted with great rancour by his opponents and some of his supporters, embittered his later years.

The same fate awaited him in another instance. His system of Chronology had been long conceived, but he had not communicated it to any one until he explained it to the Princess of Wales. At her desire, he afterwards, in 1718, drew up a short abstract of it for her

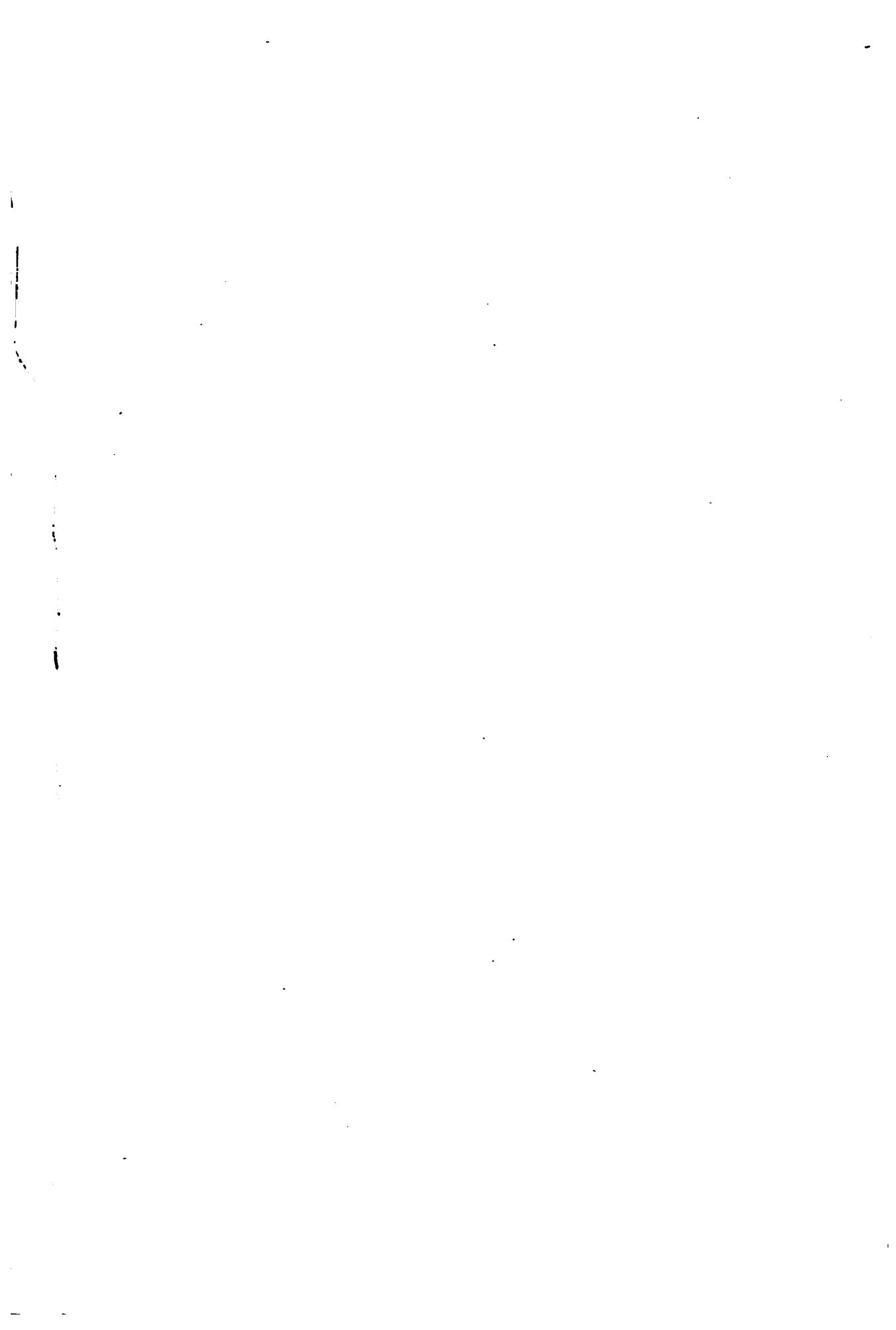
use, and sent it to her on condition that no one else should see it. She afterwards requested that the Abbé Conti might have a copy of it, and Newton complied, but still on the terms that it should not be farther divulged. Conti, however, showed the manuscript at Paris to Freret, who, without the author's permission, translated and published it with observations in opposition to its doctrines. Newton drew up a reply which was printed in the Philosophical Transactions for 1725, and this was the signal for a new attack by Souciet. Newton was then roused to his last great exertion, that of fully digesting his system; which as yet existed only in confused papers, and preparing it for the press. He did not live to complete his task, but the work was left in a state of great forwardness, and was published in 1728 by Mr. Conduitt. Its value is well known. As a refutation of the systems of chronology then received, it is almost demonstrative; and the affirmative conclusions, if not always minutely correct, or even generally satisfactory, are yet among the most valuable contributions which science has made to history.

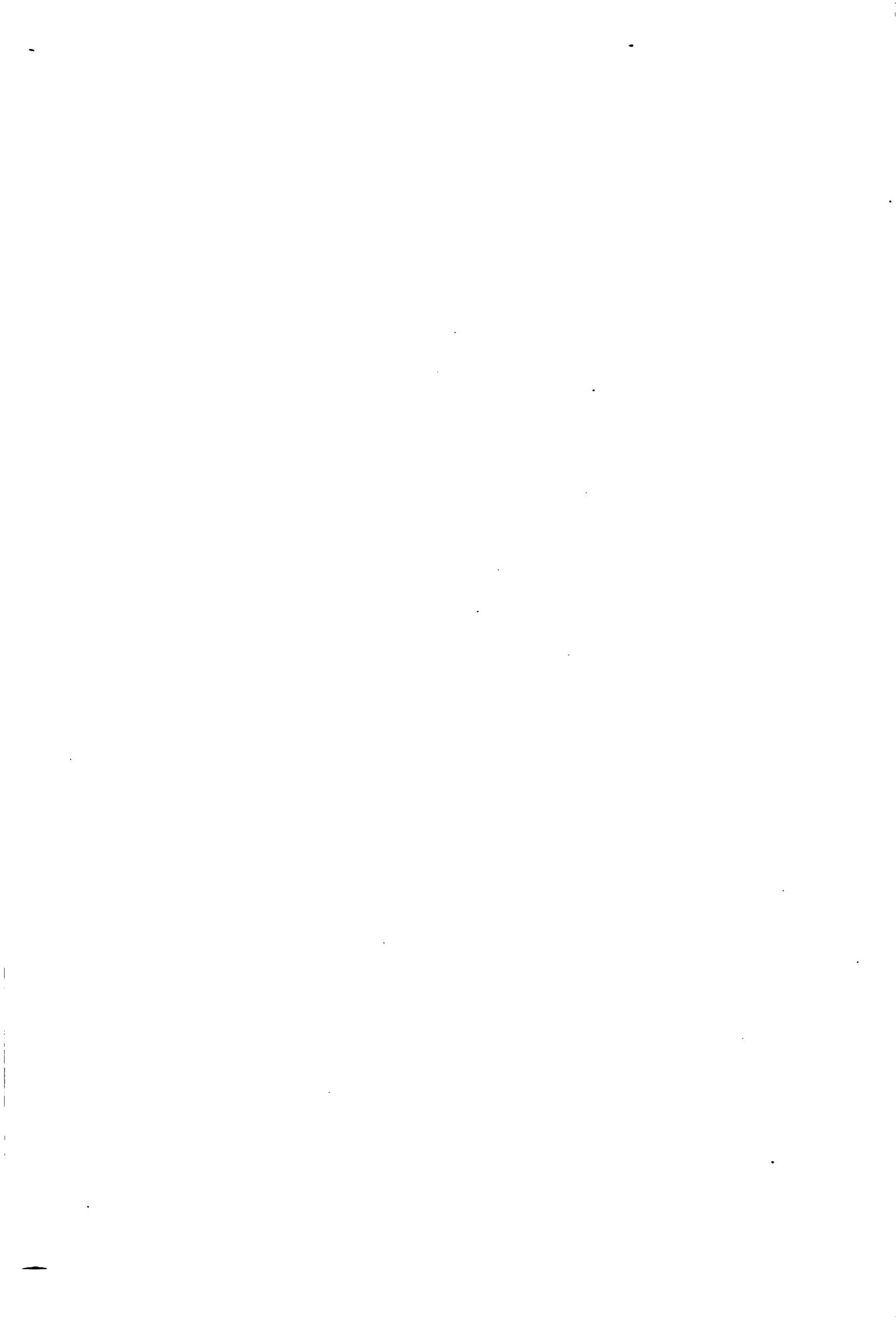
With the exception of the attack of 1693, Newton's health had usually been very good. But he suffered much from stone during the last few years of his life. His mental faculties remained in general unaffected, but his memory was much impaired. From the year 1725 he lived at Kensington, but was still fond of going occasionally to London, and visited it on February 28th, 1727, to preside at a meeting of the Royal Society. The fatigue appears to have been too great: for the disease attacked him violently on the 4th of March, and he lingered till the 20th, when he died. His sufferings were severe, but his temper was never soured, nor the benevolence of his nature obscured. Indeed his moral was not less admirable than his intellectual character, and it was guided and supported by that religion, which he had studied not from speculative curiosity, but with the serious application of a mind habitually occupied with its duties, and earnestly desirous of its advancement.

Newton died without a will, and his property descended to Mrs. Conduitt and his other relations in the same degree. He was buried with great pomp in Westminster Abbey, where there is a monument to his memory, erected by his relations. His Chronology appeared, as has been already mentioned, almost immediately after his death; and the *Lectiones Opticæ*, the substance of his lectures at Cambridge in the years 1669, 1670, and 1671, were published from his manuscripts in 1729. In 1733, Mr. Benjamin Smith, one of the descendants of his mother's second marriage, published the *Observations on the Pro-*

phecies. These, in addition to the works already mentioned, are Newton's principal writings ; there are, however, several smaller tracts, some of which appeared during his lifetime, and some after his death, which it is not necessary here to specify. They would have conferred much honour on most philosophers ;—they are hardly remembered in reckoning up Newton's titles to fame.

Many portraits of Newton are in existence. The Royal Society possesses two ; and Lord Egremont is the owner of one, which is engraved as the frontispiece to Dr. Brewster's *Life of Newton*. Trinity College, Cambridge, abounds in memorials of its greatest ornament. Almost every room dedicated to public purposes possesses a picture of him, and the chapel is adorned by Roubiliac's noble statue. The library also has a bust by the same artist, of perhaps even superior excellence. As works of art these are far superior to any of the paintings extant : but they have not the claim to authenticity possessed by the contemporary portraits. It is remarkable, that until the recent publication of Dr. Brewster's life, no one had thought it worth while to devote an entire work to the history of so remarkable a man as Newton. There is, however, an elaborate memoir of him, written by M. Biot, in the *Biographie Universelle*, which has been republished in the *Library of Useful Knowledge*.





MICHAEL ANGELO BUONAROTI was born at the castle of Caprese in Tuscany, on March 6, 1474-5. He was descended from a noble, though not a wealthy family ; and his father endeavoured to check the fondness for drawing which he showed at an early age, lest he should disgrace his parentage by following what was then deemed little better than a mechanical employment. Fortunately for the arts, the bent of the son's genius was too decided to be foiled by the parent's pride ; and in April, 1488, young Buonaroti was placed under the tuition of Ghirlandaio, then the most eminent painter in Italy.

He soon distinguished himself above his fellow pupils, and was fortunate in attracting the notice of Lorenzo de Medici ; but the early death of his patron, and the troubles which ensued in Florence, clouded the brilliant prospects which seemed open to him. He first visited Rome when about twenty-two years old, at the invitation of Cardinal St. Giorgio ; and resided in that city for a year, without being employed to execute anything for his pretended patron. He obtained three commissions, however, from other quarters ; one for a Cupid, a second for a statue of Bacchus, a third for a Virgin and dead Christ, which forms the altar-piece of a chapel in St. Peter's. The latter work was the most important, and established his character as one of the first sculptors of the day.

Returning to Florence soon after the appointment of Sodarini to be perpetual Gonfaloniere, or standard-bearer, an office equivalent to that of president of the republic, he found ampler room for the development of his talents in the favour of the chief magistrate ; for whom he executed the celebrated statue of David, in marble, placed in front of the Palazzo Vecchio ; and another statue of David, and a group of

David and Goliath, both in bronze. To this period we are also to refer an oil picture of a Holy Family, painted for Angelo Doni, and now in the Florence gallery; the only oil painting which can be authenticated as proceeding from his hand.

The accounts of Michael Angelo's early life relate so exclusively to his skill and practice as a sculptor, that some wonder may be felt as to the means by which he acquired the technical science and dexterity necessary to the painter. But it was in composition, and as a draughtsman that he excelled, not as a colourist; and the same intimate knowledge of the human figure, and freedom and boldness of hand, which guided his chisel, often, it is said, without a model, will account for the anatomical excellence and energy of his drawings. Nevertheless it is surprising to find him at this early age rivalling, and indeed by general suffrage excelling in his own art Leonardo da Vinci, not only the first painter of his generation, but one of the most accomplished persons of his age. The work to which we allude, the celebrated Cartoon of Pisa, painted as a companion to a battle-piece of Leonardo, has long disappeared; and is generally supposed to have been destroyed clandestinely by Baccio Bandinelli, a rival artist, of whose envious and cowardly temper some amusing anecdotes are related in Benvenuto Cellini's autobiography. It represented a party of Florentine soldiers, disturbed, while bathing in the Arno, by a sudden call to arms. Only one copy of it is said to exist, which is preserved in Mr. Coke's collection at Holkham.

When Julius II. ascended the papal chair, he invited Michael Angelo to Rome, and commissioned him to erect a splendid tomb. The original design, a sketch of which may be seen in Bottari's edition of Vasari, was for an insulated building, thirty-four feet six inches by twenty-three feet, ornamented with forty statues, many of colossal size, and a vast number of bronze and marble columns, basso-relievos, and every species of architectural decoration of the richest sort. This commission, upon the due execution of which Michael Angelo set his heart, as a worthy opportunity of immortalizing his name, was destined to involve him in a long train of vexations. During the life of Julius, the attention which he wished to concentrate on this one great work was distracted by a variety of other employments forced on him by his patron. Upon his death, it was resolved to finish it on a smaller scale: but its progress was then more seriously interrupted by the eagerness of successive Popes to employ the great artist on works which should immortalize their own names as liberal patrons of the arts. Ultimately, after much dissatisfaction and

dispute on the part of Pope Julius's heirs, the form of the monument was altered ; and as it now stands in the church of St. Pietro in Vinculis, it consists only of a façade, ornamented by seven statues, three of which are from the hand of Michael Angelo, the others are by inferior artists. The central figure is the celebrated Moses, by many considered the finest modern work of sculpture ; and this is the only part of the original composition.

During the same pontificate, Michael Angelo painted the ceiling of the Sistine chapel. The employment was not to his taste ; but it was forced upon him by Pope Julius. He had never tried his powers in fresco painting ; and that branch of the art, as is well known, involves many difficulties, which, though merely mechanical, it requires some practice and experience to surmount. Having first completed the design in a series of cartoons, he sent to Florence to engage the ablest assistants to be found : but their labours were unsatisfactory, and dismissing them, he set to work himself, and executed the whole vault with his own hands, in the short space of twenty months.

Julius II. died in 1513. The next nine years, comprehending the pontificate of Leo X., are an entire blank in Michael Angelo's life, so far as regards the practice of his art. He was employed the whole time, by the Pope's express order, in superintending some new marble quarries in the mountains of Tuscany.

During the pontificate of Adrian VI. he resided at Florence, where Giuliano de Medici, afterwards Clement VII., employed him to build a new library and sacristy to the church of St. Lorenzo, and a sepulchral chapel, to serve as a mausoleum for the ducal family. He was also employed to execute two monuments in honour of Giuliano, the brother, and Lorenzo de Medici, the nephew, of Leo X. The princes are represented seated, in the Roman military habit, above two sarcophagi. Below are two recumbent figures to each monument, one pair representing Morning and Evening ; the other, Day and Night. The reason for this singular choice of personages is not explained.

We cannot enter upon the maze of Italian politics, which led to the siege of Florence by the imperial troops in 1529-30. Michael Angelo's well-known and varied talent led to his being appointed chief engineer and master of the ordnance to the city ; in which capacity he gained new honour by his skill, resolution, and patriotism. During this turbulent time he began a picture of Leda, which was sent to France, and fell into the possession of Francis I. It has long been lost ; the original cartoon is in the collection of the Royal Academy.

Michael Angelo's second work in fresco, the Last Judgment, occupying the east end of the Sistine chapel, seems to have been

begun in 1533 or 1534. It was not finished till 1541. His last and only other works of this kind were two large pictures in the Pauline chapel, representing the Martyrdom of St. Peter, and the Conversion of St. Paul. These were not completed till he had reached the advanced age of seventy-five.

In 1546 died Antonio da San Gallo, the third architect employed in the rebuilding of St. Peter's. The project of renewing the metropolitan church of Rome was first suggested to the ambitious mind of Pope Julius II. by the impossibility of finding any place in the then existing cathedral, worthy of the splendid monument which he had ordered Michael Angelo to execute. Bramante, Raphael, and San Gallo, were successively appointed to conduct the mighty undertaking, and removed by death. San Gallo had deviated materially from the design of Bramante. Michael Angelo disapproved of his alterations ; but was deterred from returning to the original plan by its vast extent, and the necessity of contracting the extent of the work so as to meet the impoverished state of the Papal treasury, produced by the spreading of the Reformation in Germany and England. He accordingly gave in the design from which the present building was erected, which, gigantic as it is, falls short of the dimensions of that which Julius proposed to raise. Having now reached the advanced age of seventy-one, it was with reluctance that he undertook so heavy a charge. It was, indeed, only by the absolute command of the Pope that he was induced to do so ; and on the unusual condition that he should receive no salary, as he accepted the office purely from devotional feelings. He also made it a condition that he should be absolutely empowered to discharge any persons employed in the works, and to supply their places at his pleasure.

To the independent and upright feelings which led him to insist on this latter clause, the factious opposition, which harassed the remainder of his life, is partly to be ascribed. Disinterested himself, he suffered no peculation under his administration ; and he was repaid by the hatred of a powerful party connected with those whose vanity his appointment wounded, or whose interests his honesty crossed. Repeated attempts were made to procure his removal, to which he would willingly have yielded, but for a due sense of the greatness of the work which he had undertaken, and reluctance to quit it, until too far advanced to be altered and spoiled by some inferior hand. This praiseworthy solicitude was not disappointed. During the life of Paul, and through four succeeding pontificates, he held the situation of chief architect ; and before his death, in February, 1563-4, the cupola was raised, and the principal features of the building unalterably determined.

His earlier architectural works are to be seen at Florence. They consist of the façade and sacristy of the church of St. Lorenzo, left unfinished by Brunelleschi, the mausoleum of the Medici family, and the Laurentian library. During the latter part of his life he amused his leisure hours by working on a group representing a dead Christ, supported by the Virgin and Nicodemus, which he intended for an altarpiece to the chapel in which he should himself be interred. It was never finished, however, and is now in the cathedral of Florence. But, from the time of his assuming the charge of St. Peter's, his attention was almost entirely devoted to architecture. His chief works were the completion of the Farnese palace, begun by San Gallo; the palace of the Senator of Rome, the picture galleries, and flight of steps leading up to the convent of Araceli, all situated on the Capitoline hill; and the conversion of the baths of Diocletian into the church of S. Maria degli Angeli.

Michael Angelo, though he painted few pictures himself, frequently gave designs to be executed by his favourite pupils, especially Sebastiano del Piombo. Such was the origin of the magnificent Raising of Lazarus, in the National Gallery. Like many artists of that age, he aspired to be a poet. His works consist chiefly of sonnets, modelled on the style of Petrarch. Religion and Love are the prevailing subjects.

The Life of Michael Angelo, by Mr. Dupper, will gratify the curiosity of the English reader, who wishes to pursue the subject beyond this mere list of the artist's principal works. To the Italian reader we may recommend the lives of Condivi and Vasari, as containing the original information from which subsequent writers have drawn their accounts. To do justice to the versatile, yet profound genius of this great man, is a task which we must leave to such writers as Reynolds and Fuseli, in whose lectures the reader will find ample evidence of the profound admiration with which they regarded him. Nor can we conclude better than with the short but energetic character given by the latter, of his favourite artist's style of genius, and of his principal works:—

"Sublimity of conception, grandeur of form, and breadth of manner, are the elements of Michael Angelo's style. By these principles he selected or rejected the objects of imitation. As painter, as sculptor, as architect, he attempted, and above any other man, succeeded, to unite magnificence of plan, and endless variety of subordinate parts, with the utmost simplicity and breadth. His line is uniformly grand: character and beauty were admitted only as far as they could be made subservient to grandeur. To give the appearance of perfect ease to the

most perplexing difficulty, was the exclusive power of Michael Angelo. He is the inventor of epic painting, in that sublime circle of the Sistine chapel which exhibits the origin, the progress, and the final dispensations of theocracy. He has personified motion in the groups of the Cartoon of Pisa; embodied sentiment on the monuments of S. Lorenzo; unravelled the features of meditation in the Prophets and Sibyls of the Sistine chapel; and in the Last Judgment, with every attitude that varies the human body, traced the master-trait of every passion that sways the human heart. Though, as sculptor, he expressed the character of flesh more perfectly than all who came before or went after him, yet he never submitted to copy an individual, Julius II. only excepted; and in him he represented the reigning passion rather than the man. In painting he has contented himself with a negative colour, and as the painter of mankind, rejected all meretricious ornament. The fabric of St. Peter's, scattered into infinity of jarring parts by Bramante and his successors, he concentrated; suspended the cupola, and to the most complex gave the air of the most simple of edifices. Such, take him for all in all, was M. Angelo, the salt of art: sometimes he no doubt had his moments of dereliction, deviated into manner, or perplexed the grandeur of his forms with futile and ostentatious anatomy: both met with armies of copyists; and it has been his fate to be censured for their folly."—(Lecture II.)



Douglas or Finschale

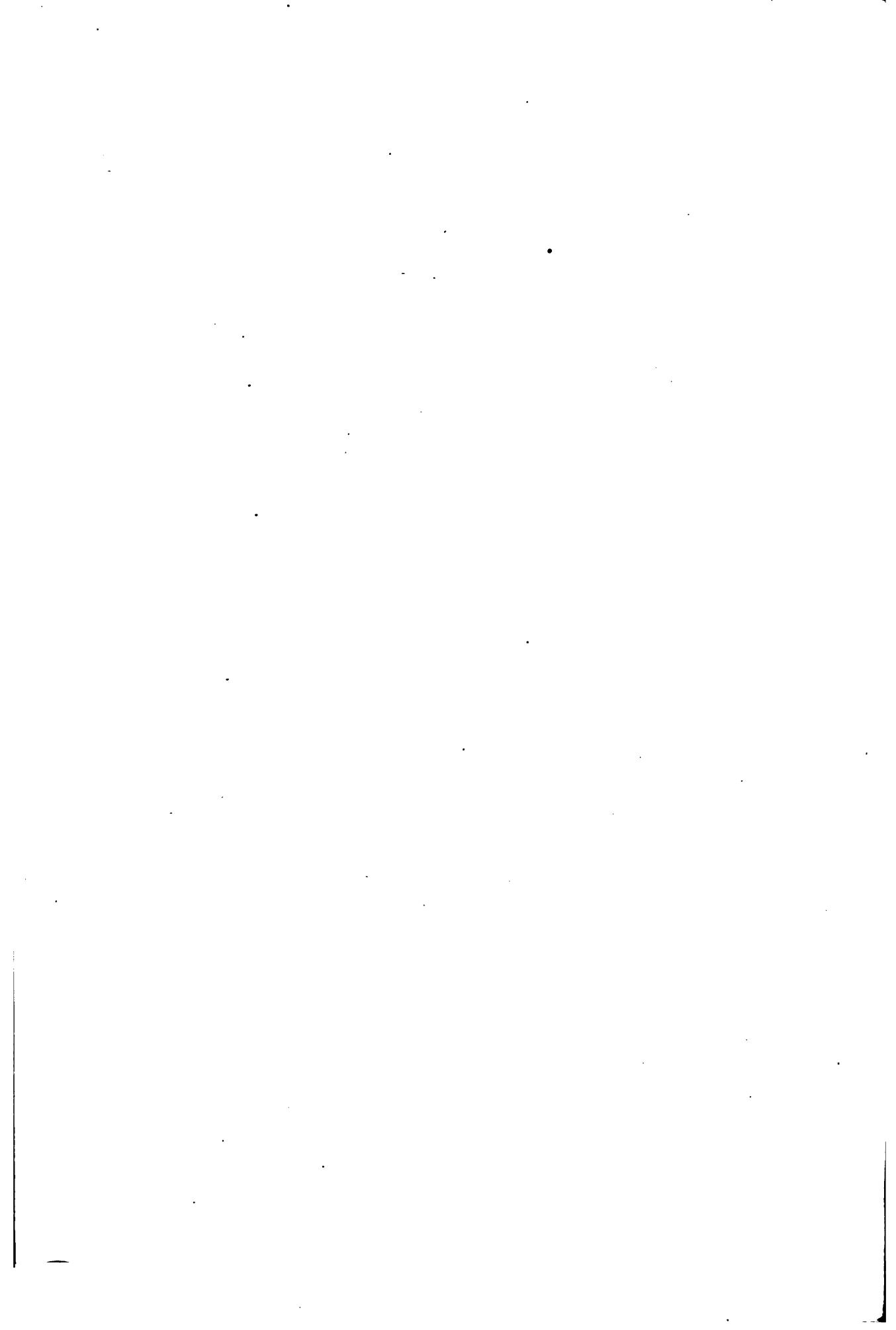
MOLIERE

*From the original Picture of Town, Painted
in the collection of the Royal Society*

In the possession of the Society of the Royal Society

Printed by Z. de Wolfe for Longman





MOLIERE, the contemporary of Corneille and Racine, whose original and real name was Jean Baptiste Poquelin, was born at Paris on the 15th January, 1622. His father and mother were both in trade ; and they brought up their son to their own occupation. At the age of fourteen, young Poquelin could neither read, write, nor cast accounts. But the grandfather was very fond of him ; and being himself a great lover of plays, often took his favourite to the theatre. The natural genius of the boy was, by this initiation, kindled into a decided taste for dramatic entertainments : a disgust to trade was the consequence, and a desire of that mental cultivation from which he had hitherto been debarred. His father consented at length to his becoming a pupil of the Jesuits at the College of Clermont. He remained there five years, and was fortunate enough to be the class-fellow of Armand de Bourbon, Prince de Conti, whose friendship and protection proved of signal service to him in after-life. He studied under the celebrated Gassendi, who was so impressed by the apparent aptitude of young Poquelin to receive instruction, that he admitted him to the private lectures given to his other pupils. Gassendi was in the habit of breaking a lance with two great rivals : Aristotle, at the head of ancient, and Descartes, then at the head of modern philosophy. By witnessing this combat, Poquelin acquired a habit of independent reasoning, sound principles, extensive knowledge, and that feeling of practical good sense, which was so conspicuous not only in his most laboured, but even in his lightest productions.

His studies under Gassendi were abruptly terminated by the following circumstance. His father was attached to the court in the double capacity of valet-de-chambre and tapestry-maker ; and the son had

the reversion of these places. When Louis XIII. went to Narbonne in 1641, the old man was ill, and the young one was obliged to officiate for him. On his return to Paris, his passion for the stage, which had first led him into the paths of literature, revived with renewed strength. The taste of Cardinal de Richelieu for theatrical performances was communicated to the nation at large, and a peculiar protection was granted to dramatic poets. Many little societies were formed for acting plays in private houses, for the amusement at least of the performers. Poquelin collected a company of young stage-stricken heroes, who so far exceeded all their rivals, as to earn for their establishment the pompous title of The Illustrious Theatre. He now determined to make the stage his profession, and changing his name, according to the usage in such cases, adopted that of Moliere.

He disappears during the time of the civil wars, from 1648 to 1652; but we may suppose the interval to have been passed in composing some of those pieces which were afterwards brought before the public. When the disturbances ceased, Moliere, in partnership with an actress of Champagne, named La Béjard, formed a strolling company; and his first regular piece, called L'Etourdi, or the Blunderer, was performed at Lyons in 1653. Another company of comedians settled in that town was deserted by the spectators in favour of these clever vagabonds; and the principal performers of the regular establishment took the hint, pocketed their dignity, and joined Moliere. The united company transferred itself to Languedoc, and were retained in the service of the Prince of Conti. During the Carnival of 1658, the troop, having resumed their vagrant life, were playing at Grenoble. The following summer was passed at Rouen. When so near Paris, Moliere made occasional journeys thither, with the earnest hope of bettering his fortune in the metropolis, where the market for talent is always brisk and open, the competition, though severe, fair and encouraging. Once more he received protection from his august fellow-collegian, who introduced him to Monsieur, and ultimately to the King himself. The company appeared before their Majesties and the court for the first time, on the 3d of November, 1658, on a stage erected in the Hall of the Guards in the Old Louvre: Their success was so complete that the King gave orders for their permanent settlement in Paris, and they were allowed to act alternately with the Italian players in the Hall of the Petit Bourbon. In 1663 a pension of a thousand livres was granted to Moliere, and in 1665 his company was taken altogether into the King's service.

As in the course of about fifteen years he produced more than double that number of dramatic pieces, instead of giving, within our

narrow limits, a mere dry catalogue of titles, we shall make some more detailed remarks on a few of those masterpieces, in different styles, which not only raised the character of French comedy to a great height in France itself, but in a great measure furnished the staple to some of our own most distinguished writers.

Among many persons of taste and judgment, the Misanthrope has borne the character of being the most finished of all Moliere's pieces; of combining the most powerful efforts of united genius and art. The subject is single, and the unities are exactly observed. The principal person of the drama is strongly conceived, and brought out with the boldest strokes of the master's pencil: it is throughout uniform, and in strict keeping. The subordinate persons are equally well drawn, and fitted for their business in the scene, so as to throw an artist-like light upon the chief figure. The scenes and incidents are so contrived and conducted as to diversify the main character, and set it in various points of view. The sentiments are strong and nervous as well as proper; and the good sense with which the piece is fraught, proves that the bustle and dissipation of the court and the theatre had not obliterated the lessons of the college, or the lectures of Gassendi.. The title of the play will at once bring to the mind of an Englishman our own Timon of Athens; but there are scarcely any other points of resemblance. The ancient and the modern Man-hater had little in common: the Athenian was the victim of personal ill-treatment; having suffered by excess of good-nature and credulity, he runs into the other extreme of suspicion and revenge. Moliere's Man-hater owes his character to the severity of virtue, which can give no quarter to the vices of mankind; to that sincerity which disdains indiscriminate complaisance, and the prostitution of the language of friendship to the flattery of fools and knaves. Wycherley, in his Plain Dealer, has given the French Misanthrope an English dress. Manly is a character of humour, speaking and acting from a peculiar bias of temper and inclination; but the coarseness of the *plain dealing* is not to be tolerated, and what Manly *does* goes near to counteract the moral effect of what he *says*.

By way of contrasting the various talents of the author, than whom none better understood human nature in its various ramifications, or copied more skilfully every shade and gradation of manners, we may just mention the Bourgeois Gentilhomme, exhibiting the folly and affectation of a cit turned man of fashion. If the moral of the Misanthrope be pure, the wit of the Bourgeois is terse and diverting.

In several of his comedies he has treated medicine and its professors not only with freedom but severity; it was, however, perverted medicine

only, and its quack professors that were the subjects of his ridicule. The respectable members of the faculty could be no more affected by the satire, nor displeased by what they could not fear, than a true prophet by the punishment of imposture. Those who are acquainted with the history of the science will recollect the state of it at Paris in Moliere's time, and the character of the physicians. Their whole employment was confined to searching after visionary specifics, and experimental trickery in chemistry. The cause of a disease was never inquired after, nor the symptoms regarded; but hypothetical jargon and random prescription were thrown like dust into the eyes of the patient, to the exclusion of a practice founded on science and observation. Thus medicine became a pest instead of a remedy; and this state of things justified the chastisement inflicted.

Les Précieuses Ridicules is a comedy intended to reprove a vain, fantastical, and preposterous humour prevailing very much about that time in France. It had the desired effect, and conduced materially towards rooting out a taste in manners so unreasonable and ridiculous.

Tartuffe, or *The Impostor*, has occasionally, and even recently, sometimes to the disturbance of the public peace in France, given great offence not only to those who felt the justice, and winced under the severity of the satire; but to others, who suspected that a blow was aimed at religion, under the mask of an attack upon hypocrisy. But its intrinsic merit, the truth of the drawing, and the justness of the colouring, have secured patrons for it among persons of unquestionable sense, virtue, learning, and taste; and it has always triumphed over the violence of opposition. Cibber, a vamper of other men's plays, has borrowed from it his favourite *Nonjuror*, and applied it to the purposes of a political party. On this adaptation has been grafted a more modern attack on the Methodists, under the title of *The Hypocrite*. But however great may be the merit of this celebrated drama, it cannot boast of entire originality. Machiavelli left behind him three comedies, the fruits of a statesman's leisure hours. In all three, the author has exhibited the hand of a master; he has painted mankind in the spirit of truth, and unmasked falsehood and hypocrisy in a tone of profound contempt. Two monks, a brother Timothy and a brother Alberico, are represented with too much wit and keenness of sarcasm to have been overlooked by Moliere in his working up of the third specimen. The first three acts of the *Tartuffe* were played for the first time at court before the piece was finished. Masques of pomp, magnificence and panegyric, such as usually furnish out the amusement of royal saloons, are forgotten as soon as they have served the purpose of the moment: but masterpieces like that now in question perpetuate their

own renown, and leave a lasting memorial of what is supposed to be a phenomenon, a princely taste for genuine wit.

Les Fâcheux was the first piece in which dancing was so connected with the dramatic action, as to fill up the intervals without breaking the thread of the story.

Le Mariage Forcé was borrowed from Rabelais, to whom both Moliere and La Fontaine were deeply indebted. The Aristotelian and Pyrrhonian philosophy, as travestied by modern doctors, furnishes occasion for lively satire and clever buffoonery. The horror with which Pancrace calls down the vengeance of heaven on him who should dare to say the *form* of a hat, instead of the *figure* of a hat, is a pleasant parody on the unintelligible absurdities of the schools. According to Marphurius, philosophy commands us to suspend our judgment, and to speak of every thing with uncertainty ; not to say *I am come*, but, *I think that I am come*.

La Princesse d'Elide, though not one of Moliere's happiest efforts, deserves notice on account of its contributing to the festivities of the court, by an adaptation of ingenious allegories to the manners and events of the time. This satire was aimed at the illusion of Judicial Astrology, after which many princes of the period were running mad ; and in particular Victor Amadeus, Duke of Savoy, father of the Duchess of Burgundy, who kept an astrologer about his person even after his abdication. The dramatic antiquary may find some amusement in comparing the fêtes of the French court with the masques of Ben Jonson, Davenant, and others, exhibited before our James I. and Charles I. ; but here the interest ends. It is sufficient to remark, that the masques of the English court owed their power of pleasing to the ingenuity of the mechanist and the flattery of the poet. The little dramas performed before the royal family of France tickled the ears of the audience by the pungency of their wit and ridicule.

The Miser has been pretty closely translated, for the version is little more, by Henry Fielding ; but not so happily as he himself seems to have imagined.

The subject of that excellent comedy, Les Femmes Savantes, in which the ridicule is kept within reasonable bounds, and female faults and virtues are painted with a proper gradation of colouring, where what the painters call a *medium tint* harmonizes the extremes of light and shade, was taken up by Goldoni with that coarse and abrupt pencilling of black and white, which has always been the vice of the Italian stage. It has indeed been advanced as a reproach to Moliere, that he too often charged his comic pictures with the extravagance of caricature : but if we compare even the most farcical of his scenes

ciated and adopted by the accomplished Madame, by a Condé, a Turenne, and a Colbert, followed by a long train of eminent men in every department of the state and of society.

Little has come down to us respecting Moliere's personal history or habits, excepting that his marriage was not among the happy or creditable events of his life. So little did he in his own case weigh the evils of disproportioned age, however sarcastically he might imagine them in fictitious scenes, that he took for his partner the daughter of La Béjard, the associate of his strolling career. If his choice were a fault, it carried its punishment along with it. He was very jealous, and the young lady was an accomplished coquette. The bickerings of married life were the frequent and successful topics of his comedies; and his enemies asserted, that in drawing such scenes, he possessed the advantage of painting from the life. Of that ridicule which had so often set the theatre in a roar, he was himself the serious subject, the repentant and writhing victim.

Fuller accounts of Moliere are to be found prefixed to the best editions of his works: we may mention those of Joly, Petitot, and Auger. An article of considerable length, by the last-named author, is devoted to our poet in the Biographie Universelle.



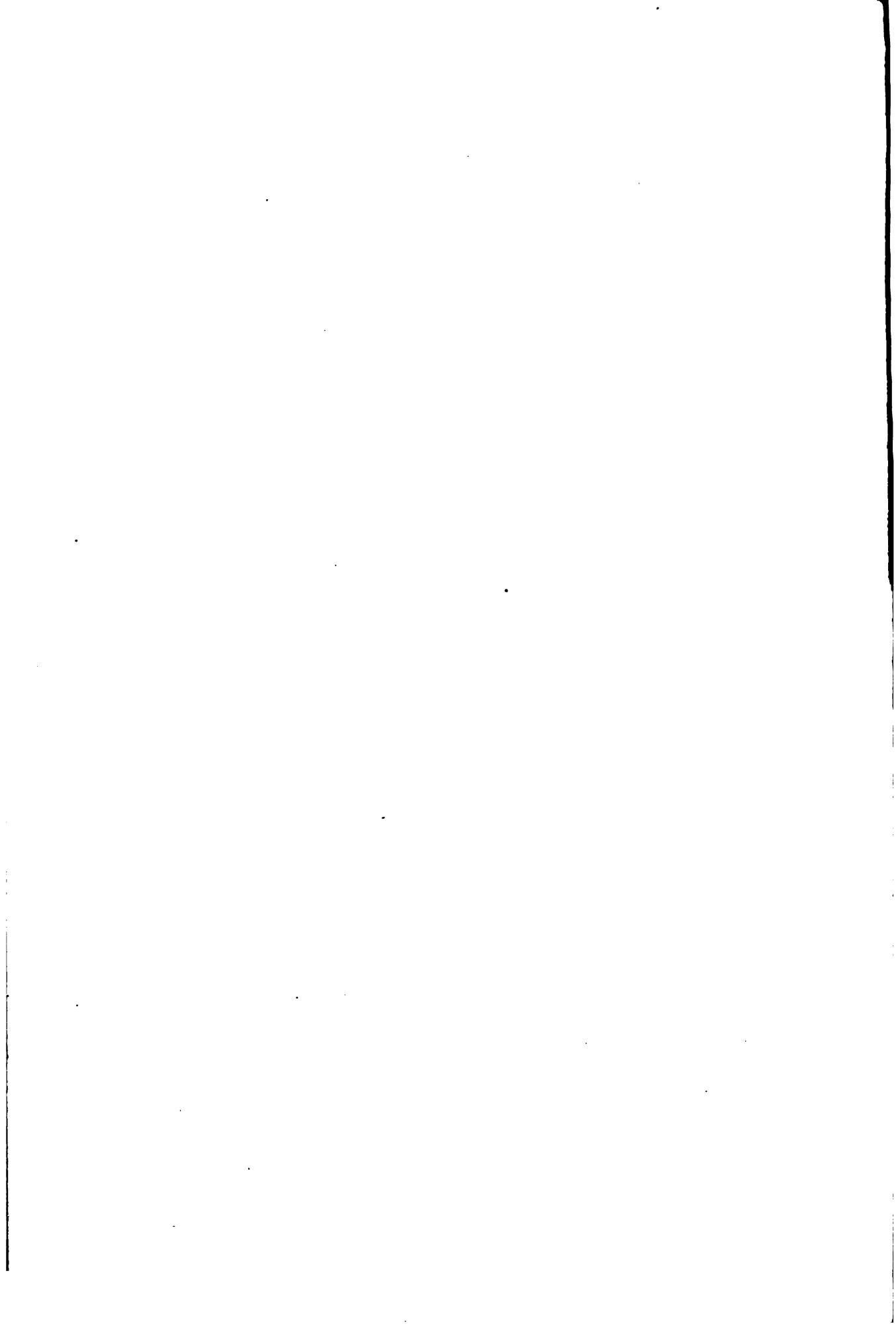
Entered by J. R. Goss

CHARLES JAMES FOX

*and Charles Fox's son Charles
in the beginning of the century.*

See also Supplemental Entry, *Charles Fox*, and *Charles Fox, Jr.*

*Editor, *British & Foreign Museum Catalogues*.*



THE Right Honourable Charles James Fox was third son of the Right Honourable Henry Fox, afterwards Lord Holland, and of Lady Georgina Caroline Fox, eldest daughter of Charles, second Duke of Richmond. He was born January 24th, 1749, N. S.

Mr. Fox received his education at Eton ; and the favourite studies of the place had more than ordinary influence over his tastes and literary pursuits in after-life. Before he left school, his father was so imprudent as to carry him to Paris and Spa. To his early associations at the latter place may be ascribed that propensity to gaming, which was the bane of two-thirds of his life. As the present article is not designed to be a mere panegyric, we abandon the indulgence of this fatal passion to the severest censure that can be bestowed upon it by the philosopher and the moralist : but justice demands it at our hands to say, that after the adjustment of Mr. Fox's affairs by his friends, personal and political, he resolutely conquered what habit had almost raised into second nature, and abstained from play with scrupulous fidelity. It may further be remarked, that while the paroxysms of the fever were most violent, his mind was never interrupted from more worthy objects of pursuit.

The following anecdote will show the divided empire which discordant passions alternately usurped over his heart. On a night when he had sustained some serious losses, his deportment assumed so much of the character of despair, that his friends became uneasy : they followed him at distance enough to elude his observation, from the club-house to his home in the neighbourhood. They knocked at his door in time, as they thought, to have prevented any rash act, and rushed into the library. There they found the object of their anxiety stretched on the ground without his coat, before the fire : his hand neither grasping a razor nor a pistol, but his eyes intently fixed on the pages of

Herodotus. The old historian had engrossed him wholly from the moment when he took up the volume, and the ruins of his own air-built castles vanished from before him, as soon as he got sight of the venerable remains of the ancient world.

At Oxford Mr. Fox distinguished himself by his powers of application, as well as by the intuitive quickness of his parts. On quitting the university, he accompanied his father and mother to the south of Europe. Not finding a good Italian master at Naples, he taught himself that language during the winter, and contracted a strong partiality for Italian literature. In a letter from Florence to Mr. Fitz-Patrick, he conjures that gentleman to learn Italian as fast as he can, if it were only to read Ariosto ; and adds, “There is more good poetry in Italian than in all other languages I understand put together.” At a later period of life, if we may judge from the tenor of his correspondence with eminent scholars, he would have transferred that praise from the Italian to the Greek tongue. At this time he was very fond of acting plays, and was in all respects the man of fashion. Those who recollect the simplicity, bordering on negligence, of his outward garb late in life, will smile at the idea of Mr. Fox with a powdered toupee and red heels to his shoes, the hero of private theatricals. During his absence, in 1768, he was chosen to represent Midhurst, and made his first speech on the 15th April, 1769. According to Horace Walpole, he spoke with violence, but with infinite superiority of parts.

Circumscribed as we are as to space, we shall not follow Mr. Fox’s subaltern career in the House of Commons. It was his breach with Lord North that raised him into a party leader. He had previously formed an intimate acquaintance with Mr. Burke. He began by receiving the lessons of that eminent person as a pupil ; but the master was soon so convinced of his scholar’s greatness of character, and statesman-like turn of mind, that he resigned the lead to him, and became an efficient coadjutor in the Rockingham party, of which, in the House of Commons, he had almost been the dictator. The American war roused all the energies of Mr. Fox’s mind. The discussions to which it gave rise involved all the first principles of free government. The vicissitudes of the contest tried the firmness of the parliamentary opposition. Its duration exercised their perseverance. Its magnitude and the dangers of the country called forth their powers. Gibbon says, “Mr. Fox discovered powers for regular debate, which neither his friends hoped nor his enemies dreaded.” The following passage, from a letter to Mr. Fitz-Patrick, written in 1778, illustrates

his honourable and independent character : “ People flatter me that I continue to gain rather than lose estimation as an orator ; and I am so convinced this is all I ever shall gain (unless I choose to be one of the meanest of men), that I never think of any other object of ambition. I am certainly ambitious by nature, but I have, or think I have, totally subdued that passion. I have still as much vanity as ever, which is a happier passion by far, because great reputation, I think, I may acquire and keep ; great situations I never can acquire, nor, if acquired, keep, without making sacrifices that I will never make.” In the summer of 1778, he rejected Lord Weymouth’s overtures to join the ministry, and took his station as the leading commoner in the Rockingham party, to which he had become attached on principle long before he enlisted permanently in its ranks. The conspicuous features of that party, and of Mr. Fox’s public character, were the love of peace with foreign powers, the spirit of conciliation in home management, an ardent attachment to civil and religious liberty.

The day of triumph came at last, when a resolution against the further prosecution of the American war was carried in the Commons. The King was compelled, reluctantly, to part with the supporters of his favourite principles, and had nothing left but to sow the seeds of disunion between the Rockingham and Chatham or Shelburne party, united on the subject of America, but disagreeing on many other points both of external and internal policy. In this he was but too successful. We have neither space nor inclination to unravel the web of court intrigue ; but we may remark that Lord Rockingham’s demands were too extensive to be palatable : they involved the independence of America, the pacification of Ireland, bills for economical and parliamentary reform, to be brought into Parliament as ministerial measures. But the untimely death of Lord Rockingham frustrated his enlightened and enlarged designs, by dissolving the ministry over which he had presided. Mr. Fox has been blamed for the precipitancy of his resignation. The tone of sentiment in a letter before quoted will both account and apologise for the rashness if it were such ; and it is obvious that the sacrifice of personal feeling, or even of political consistency, could not long have deferred it, amidst the cabals and clashing interests of party. Mr. Fox’s policy was to detach Holland and America from France, and to form a continental balance against the House of Bourbon. Lord Shelburne’s system was to conciliate France, and to treat her allies as dependent powers. Lord Shelburne had the ear of the King. He strengthened himself with some of the old supporters of the American war, to fill the vacant

offices, and made Mr. Pitt, just rising into eminence, his Chancellor of the Exchequer. There were now three parties in the Commons ; the ministerial, the Whig or Rockingham, and the third consisting of those members of the late war ministry who had not been invited to join the present. A coalition of some two of these three parties was almost unavoidable : the public would have most approved of a reunion among the Whigs ; but there had been too much of mutual recrimination and dispute to admit of reconciliation. Nothing, therefore, remained but a junction of the two parties in opposition. A judicious friend of Mr. Fox said, " that to undertake the government with Lord North, was to risk their credit on very unsafe grounds. Unless a real good government is the consequence of this junction, nothing can justify it to the public." Popular feeling was strongly against this coalition, mainly on account of some personal acrimony vented by Mr. Fox, in the boiling over of his wrath during the American contest, which seemed to bear upon the moral character of his opponent. It is to be considered, however, that the most amiable persons, if enthusiastic, are apt in the heat of passion to launch out into invective far more violent than their natural benevolence would justify in their cooler moments. The question on which Mr. Fox and Lord North had been so acrimoniously opposed, had ceased to exist : and perhaps there existed no solid reason against the union of the two parties. But the measure was almost universally believed to arise from corrupt motives : it afforded a fine scope for satire and caricature ; and these have no small influence upon the politics of the multitude. And while the people were displeased, the King was decidedly unfriendly to the administration which had forced itself upon him. He considered the Rockingham party as enemies to his prerogative, as well as friends to American independence. He was forced to take them in, but resolved to throw them out again. The unpopular India bill, which Mr. Pitt afterwards adopted with some modifications, furnished the opportunity. The offence taken by the people against the coalition, made them lend a ready ear to the charge of ministerial oligarchy : the King disguised his sentiments till the last moment, procured the rejection of the bill in the Lords, and instantly dismissed his ministers.

The coalition was still in possession of the House of Commons ; but the voice of the people supported the minister, a dissolution was resorted to, and the will of the King was accomplished.

From 1784 to 1792, Mr. Fox was leader of a powerful party in the House of Commons, in opposition to Mr. Pitt. The Westminster Scrutiny, the Regency, the abatement of Impeachments by a dissolution

of Parliament, the Libel Bill, the Russian Armament, and the Repeal of the Corporation and Test Acts, were the topics which called forth his most powerful exertions. His force as a professed orator was conspicuously displayed in Westminster Hall, on the trial of Warren Hastings ; but the triumph of his talents is to be found in those masterly replies to his antagonists, in which cutting sarcasm and close argument, logical acuteness and metaphysical subtlety were so combined, as to surpass all that modern experience had witnessed. The constitutional doctrines of Mr. Fox on the Regency question were much canvassed, and, by many, severely censured. The fact was, that the case was new ; provided for neither by law, precedent, nor analogy. Lord Loughborough first suggested the Prince's claim of right ; and it was hastily adopted by Mr. Fox, who had returned from Italy just as the discussion was pending. Mr. Fox's Libel Bill places him among the most constitutional of our legislators. He saved his country from an unnecessary, unjust, and expensive war, by his exertions on occasion of the Russian Armament.

The controversy on the Test and Corporation Acts has lost its interest, from having since been satisfactorily set at rest. But as, in a sketch like the present, we have more to do with the character of Mr. Fox's mind than with his political history, we will here introduce an anecdote which the writer of this life heard related many years ago, by Dr. Abraham Rees, well known both in the scientific world, and as a leading divine in the dissenting interest. We have already spoken of the intuitive quickness of Mr. Fox's parts ; and the following anecdote will set that peculiarity in a strong light.

On the day of the debate, Dr. Rees waited on Mr. Fox with a deputation, to engage his support in their cause. He received them courteously ; but, though a friend to religious liberty, was evidently unacquainted with the strong points and principal bearings of their peculiar case. He listened attentively to their exposition, and, with an eye that looked them *through and through*, put four or five searching questions. They withdrew after a short conference, and as they walked up St. James's Street, Mr. Fox passed them booted, as going to take air and exercise, to enable him to encounter the heat of the House and the storm of debate. From the gallery they saw him enter the House with whip in hand, as just dismounted. When he rose to speak, he displayed such mastery of his subject, his arguments and illustrations were so various, his views so profound and statesman-like, that a stranger must have imagined the question at issue between the high church party and the dissenters to have been the main subject

of his study throughout life. That his principles of civil and religious liberty should have enabled him to declaim in splendid generalities was to be expected ; but he entered as fully and deeply into the fundamental principles and most subtle distinctions of the question, as did those to whom it was of vital importance, and that after a short conference of some twenty minutes.

The French revolution is a topic of such magnitude, that we can only touch upon Mr. Fox's opinions and conduct with respect to it. After the taking of the Bastille, he describes it as "the greatest, and much the best event that ever happened in the world : all my prepossessions against French connections for this country will be at an end, and indeed most part of my European system of politics will be altered, if this revolution has the consequence that I expect." But it had not that consequence ; and his views were completely changed by the trial and execution of the King and Queen of France. But because he did not catch that contagious disease, made up of alarm and desperate violence, which involved his country in a disastrous war, he was represented as the blind apologist of injustice and massacre, as the careless, if not jacobinical spectator of the downfall of monarchy. Mr. Burke was the first to quarrel with Mr. Fox, and this quarrel led to the temporary estrangement from him of many of his oldest and most valuable friends. But "time and the hour" restored the good understanding between the members of the party, with the exception of Mr. Burke, who died while the paroxysm of Antigallican mania was at its height.

Mr. Fox opposed to the utmost the war, into which the minister was unwillingly forced. But as his passions became heated, and the difficulties of his situation increased, Mr. Pitt adopted all Mr. Burke's views, and the rash project of a *bellum internecinum*. Both the public principles and the personal character of Mr. Fox were the subject of daily calumnies ; and the warmth of his early testimony in favour of the French revolution was continually thrown in his teeth, after the 10th of August, the massacres of September, and the success of Dumourier. But his whole conduct during this struggle was clear and consistent. At the dawn of the revolution, he felt and spoke as a citizen of the world ; but he was the last man alive to have merged patriotism in the vague generalities of universal benevolence. When his own country became implicated in the strife, he no longer felt and spoke as a citizen of the world, but as a British statesman ; and endeavoured to persuade his countrymen, not for French interests but for their own, to stand aloof from continental politics, relying, for

the maintenance of a proud independence and dignified neutrality, on their insular situation and their wooden walls. His advice was not listened to, and his mind grew indisposed towards public business. He says in a letter, dated April, 1795, "I am perfectly happy in the country. I have quite resources enough to employ my mind, and the great resource of literature I am fonder of every day." After making a vigorous, but unsuccessful opposition to the Treason and Sedition bills, he and his remaining friends seceded from parliament. He passed the years from 1797 to 1802, principally in retirement at St. Ann's Hill; and they were the happiest of his life. His mornings passed in gardening and farming, his evenings over books and in conversation with his family and friends. During this period, his attention was much given to the Greek Tragedies and to Homer, whom he read not only with the ardent mind of a poet, but with the microscopic eye of a critic. His correspondence with an eminent scholar of the time was full of sagacious remarks on the suggestions and explanations of the commentators, as well as on the text of the poem. At this time also he conceived the plan of that history of which he left only a splendid fragment in a state fit for publication. He had been diligent in collecting materials, and scrupulous in verifying them. His partiality for the Greek classics followed him into this pursuit, and probably retarded his progress. He is considered to have taken for his model Thucydides, a writer strictly impartial in his narrative, grave even to severity in his style. He went to Paris with Mrs. Fox in the summer of 1802, partly to satisfy their mutual curiosity after so long an estrangement from the Continent, but principally for the purpose of examining the copious materials for the reign of James II. deposited in the Scotch college there. Every thing was thrown open to him in the most liberal manner, and, as the unflinching friend of peace through good and evil report, he was received with enthusiasm both by the people and the government. He had several interviews with Buonaparte : the chief topics of their conversation were the concordat, the trial by jury, the freedom, amounting in the opinion of the First Consul to licentiousness, of the English press, the difference between Asiatic and European society. On one occasion he indignantly repelled the charge against Mr. Windham, of being accessory to the plot of the *infernal machine*, alleging the utter impossibility of an English gentleman descending to so disgraceful a device. During his stay in France, he visited La Fayette at his country seat of La Grange.

Our limits will not allow us to enter, ever so cursorily, into his political career after the renewal of the war. His advice was wise,

and consistent with himself ; but it was not accepted. The King's dislike of him was not to be overcome. The death of Mr. Pitt, however, made the admission of Mr. Fox and the Whigs, in conjunction with Lord Grenville, a matter of necessity. Mr. Fox's desire of peace induced him to take the office of Secretary of State for Foreign Affairs ; and, before his fatal illness, he had begun a negotiation for that main object of his whole life, with every apparent prospect of success. The hopes entertained from his accession to power were prematurely cut off; but his short career in office was honourably marked by the ministerial measure, determined on during his life, and carried after his decease, of the abolition of the Slave Trade.

The complaint of which he died was dropsy, occasioned probably by the duties of office, and the fatigue of constant attendance in the House of Commons, after the comparative seclusion and learned ease in which he had lived for several years. He expired on the 13th of September, 1806, with his senses perfect and his understanding unclouded to the last.

We conclude this brief account of Mr. Fox with the character drawn of him by one who knew him well, and was fully qualified to appreciate him,—Sir James Macintosh.

“ Mr. Fox united, in a most remarkable degree, the seemingly repugnant characters of the mildest of men and the most vehement of orators. In private life he was gentle, modest, placable, kind, of simple manners, and so averse from dogmatism, as to be not only unostentatious, but even something inactive in conversation. His superiority was never felt but in the instruction which he imparted, or in the attention which his generous preference usually directed to the more obscure members of the company. The simplicity of his manners was far from excluding that perfect urbanity and amenity which flowed still more from the mildness of his nature, than from familiar intercourse with the most polished society of Europe. The pleasantry perhaps of no man of wit had so unlaboured an appearance. It seemed rather to escape from his mind, than to be produced by it. He had lived on the most intimate terms with all his contemporaries distinguished by wit, politeness, or philosophy ; by learning, or the talents of public life. In the course of thirty years he had known almost every man in Europe, whose intercourse could strengthen, or enrich, or polish the mind. His own literature was various and elegant. In classical erudition, which by the custom of England is more peculiarly called learning, he was inferior to few professed scholars. Like all men of genius, he delighted to take refuge in poetry, from the vulgarity and irritation

of business. His own verses were easy and pleasant, and might have claimed no low place among those which the French call *vers de société*. The poetical character of his mind was displayed by his extraordinary partiality for the poetry of the two most poetical nations, or at least languages of the west, those of the Greeks and of the Italians. He disliked political conversation, and never willingly took any part in it.

"To speak of him justly as an orator, would require a long essay. Every where natural, he carried into public something of that simple and negligent exterior which belonged to him in private. When he began to speak, a common observer might have thought him awkward; and even a consummate judge could only have been struck with the exquisite justness of his ideas, and the transparent simplicity of his manners. But no sooner had he spoken for some time, than he was changed into another being. He forgot himself and every thing around him. He thought only of his subject. His genius warmed and kindled as he went on. He darted fire into his audience. Torrents of impetuous and irresistible eloquence swept along their feelings and conviction. He certainly possessed above all moderns that union of reason, simplicity, and vehemence, which formed the prince of orators. He was the most Demosthenian speaker since the days of Demosthenes. 'I knew him,' says Mr. Burke, in a pamphlet written after their unhappy difference, 'when he was nineteen; since which time he has risen, by slow degrees, to be the most brilliant and accomplished debater the world ever saw.'

"The quiet dignity of a mind roused only by great objects, the absence of petty bustle, the contempt of show, the abhorrence of intrigue, the plainness and downrightness, and the thorough good nature which distinguished Mr. Fox, seem to render him no unfit representative of the old English character, which if it ever changed, we should be sanguine indeed to expect to see it succeeded by a better. The simplicity of his character inspired confidence, the ardour of his eloquence roused enthusiasm, and the gentleness of his manners invited friendship. 'I admired,' says Mr. Gibbon, after describing a day passed with him at Lausanne, 'the powers of a superior man, as they are blended, in his attractive character, with all the softness and simplicity of a child: no human being was ever more free from any taint of malignity, vanity, or falsehood.'

"The measures which he supported or opposed may divide the opinion of posterity, as they have divided those of the present age. But he will most certainly command the unanimous reverence of future

generations, by his pure sentiments towards the commonwealth ; by his zeal for the civil and religious rights of all men ; by his liberal principles, favourable to mild government, to the unfettered exercise of the human faculties, and the progressive civilization of mankind ; by his ardent love for a country, of which the well-being and greatness were, indeed, inseparable from his own glory ; and by his profound reverence for that free constitution which he was universally admitted to understand better than any other man of his age, both in an exactly legal and in a comprehensively philosophical sense."



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THE life of the Bishop of Meaux, a theologian and polemic familiarly known to his countrymen as the oracle of their church, forms an important part of the ecclesiastical history of the seventeenth century. A short personal memoir of such a man can serve only to excite curiosity, and in some measure to direct more extended inquiries.

Jacques-Benigne Bossuet, whose father and ancestors were honourably distinguished in the profession of the law, was born at Dijon, September 27, 1627. He was placed in his childhood at the college of the Jesuits in his native town; whence, at the age of fifteen, he was removed to the college of Navarre in Paris. At both these places his progress as a student was so rapid that he passed for a prodigy. It may be mentioned, not more as a proof of precocious intellect than as characteristic of the times, that soon after his removal to Paris, whither the fame of his genius had preceded him, he was invited to exhibit his powers as a preacher at the Hotel de Rambouillet in his sixteenth year. His performance was received with great approbation.

In the year 1652 he was ordained priest, and, his talents having already made him known, he soon after received preferment in the cathedral church of Metz, of which he became successively canon, archdeacon, and dean. It was here that he published his Refutation of the Catechism of Paul Ferri, a protestant divine of high reputation. This was the first of that series of controversial writings which contributed, more than all his other works, to procure for him the high authority which he enjoyed in the church. He came forward in the field of controversy at a time when public attention was fixed on the subject, and when the favourite object both with Church and State was the peaceable conversion of the Protestants.

Richelieu in the preceding reign had crushed, by the vigour of his administration, the political power of the Protestant party. He, in common with many other statesmen, Catholic and Protestant, had conceived a notion that uniformity of religious profession was necessary to the tranquillity of the state. But, though unchecked in the prosecution of his objects by any scruples of conscience or feelings of humanity, he would have considered the employment of force, where persuasion could be effectual, to be, in the language of a modern politician, not a crime but a blunder. When therefore the army had done its work, he put in action a scheme for reclaiming the Protestants by every species of politic contrivance. The system commenced by him was continued by others ; and of all those who laboured in the cause, Bossuet was indubitably the most able and the most distinguished.

His first effort, the Refutation of the Catechism, recommended him to the notice of the Queen-Mother ; and the favour which he now enjoyed at court was further increased by the fame of his eloquence in the pulpit, which he had frequent opportunities of displaying at Paris, whither he was called from time to time by ecclesiastical business. He was summoned to preach at the chapel of the Louvre before Louis XIV., who was pleased to express, in a letter to Bossuet's father, the great delight which he received from the sermons of his son ; for the versatile taste of the great monarch enabled him in one hour to recreate himself with the wit and beauty of his mistresses, and in the next to listen with undiminished pleasure to the exhortations of a Christian pastor. But Bossuet had still stronger claims on the gratitude of Louis by converting to the Roman Catholic faith the celebrated Turenne. This victory is said to have been achieved by his well-known Exposition, written in the year 1668, and published in 1671.

So great was his influence at this time, that he was requested by the Archbishop of Paris to interfere in one of those many disputes which the Papal decrees against the tenets of Jansenius occasioned. The nuns of Port-Royal, who were attached to the doctrine and discipline of the Jansenists, were required to subscribe the celebrated Formulary, which selected for condemnation five propositions said to be contained in a certain huge work of Jansenius. Those excellent women modestly submitted, that they were ready to accept any doctrine propounded by the Church, and even to affix their names to the condemnation of the obnoxious propositions ; but that they could not assert that these propositions were to be found in a book which they had never seen. In this difficulty the assistance of Bossuet was

requested, who, after several conferences, wrote a long letter to the refractory nuns, highly commended for its acute logic and sound divinity. Much of the logic and divinity was probably thrown away upon the persons for whose use they were intended ; but there was one part of the letter sufficiently intelligible. He congratulated them on their total exemption from all obligation to examine, and from the task of self-guidance ; and assured them that it was their bounden duty, as well as their happy privilege, to subscribe and assent to every thing which was placed before them by authority. The nuns were not convinced. They escaped however for the present ; but in the end they paid dearly for their passive resistance to the decision of Pope Alexander VII. on a matter of fact.

In the year 1669, Bossuet was promoted to the bishopric of Condom, which he resigned the following year on being appointed to the important office of Preceptor to the Dauphin.

History has told us nothing of the pupil, but that his capacity was mean, and his disposition sordid. To him, however, the world is indebted for the most celebrated of Bossuet's performances. The Introduction to Universal History was written expressly for his use ; and this masterly work may serve to confirm an opinion, entertained even by his friends, that Bossuet was not peculiarly qualified for his situation. To compose such a work for such a boy was worse than a waste of power.

Though devoted closely and conscientiously to the duties of his new office, he was not altogether withdrawn from what might be called his vocation, the prosecution of controversy. It was during the period of his connexion with the Court, that his celebrated conference occurred with the Protestant Claude. Mlle. de Duras, a niece of Turenne, had conceived scruples respecting the soundness of her Protestant principles, from the perusal of Bossuet's 'Exposition.' She consulted M. Claude, who promised to resolve her doubts in the presence of Bossuet himself. The challenge was accepted, and the memorable conference was the result. Both parties published an account of it ; and their statements, as might be expected without suspicion of dishonesty on either side, did not entirely agree. The lady was content to follow the example of her uncle.

Bossuet's engagement with the Dauphin was concluded in the year 1681, when he was rewarded with the bishopric of Meaux. In so short a memoir of such a man, where only the most prominent occurrences of his life can be noticed, there is danger lest the reader should regard him only in the character of a controversialist, or in the proud station of

acknowledged leader of the Church. It is the more necessary, therefore, in this place to observe, that, to the comparatively obscure but really important duties of his diocese, he brought the same zeal and energy which he displayed on a more conspicuous theatre; and that he could readily exchange the pen of the polemic for that of the devout and affectionate pastor.

Louis, however, was not disposed to leave the Bishop undisturbed in his retirement. He was soon called forth to be the advocate of his temporal against his spiritual master.

The Kings of France had long exercised certain powers in ecclesiastical matters, which had rather been tolerated than sanctioned by the Popes. Louis was determined not only to preserve, but considerably to extend, what his predecessors had enjoyed. Hence a sharp altercation was carried on for many years between him and the See of Rome. But, in 1682, in consequence of a threatening brief issued by that haughty pontiff, Innocent XII., he summoned, by the advice of his clergy, for the purpose of settling the matters in debate, a general Assembly of the Church. Of this famous Assembly Bossuet was deservedly regarded as the most influential member. He opened the proceedings with a sermon, having reference to the subjects which were to come under consideration. In this discourse the reader may find, perhaps, some marks of that embarrassment which he is supposed to have felt. He had the deepest sense of the unbounded power and awful majesty of kings in general, and the highest personal veneration for Louis in particular; but then, on the other hand, the degree of allegiance which he owed to his spiritual head it was almost impiety to define. So, after having illustrated, with all the force of his eloquence, the inviolable dignity of the Church, and fully established the supremacy of St. Peter, he carries up, as it were in a parallel line, the loftiest panegyric on the monarchy and monarchs of France.

The discourse was celebrated for its ability, and without doubt the conflicting topics were managed with great skill. His difficulties did not cease with the dismissal of the Assembly. The question of the Régale, or the right of the King to the revenues of every vacant see, and to collate to the simple benefices within its jurisdiction, was settled not at all to the satisfaction of the Pope; and the declaration of the Assembly, drawn up by Bossuet himself, was fiercely attacked by the Transalpine divines. It was, of course, as vigorously defended by its author, who was in consequence accused by all his enemies, and some of his friends, of having forgotten his duty to the Pope in his subserviency to the King.

Nothing wearied by his exertions in the royal cause, he had scarcely left the Assembly, when he resumed his labours in defence of the Church against heresy. Several smaller works, put forth from time to time, seemed to be only a preparation for his great effort in the year 1688, when he published his 'History of the Variations in the Protestant Churches.' In this book he has made the most of what may be called the staple argument of the Catholics against the Protestants.

The course of the narrative has now brought us beyond the period of the memorable revocation of the Edict of Nantes; and it will naturally be asked, in what light Bossuet regarded this act of folly and oppression. Neither his disposition nor his judgment would lead him to approve the atrocities perpetrated by the government; but, in a letter to the Intendant of Languedoc, he labours to justify the use of pains and penalties in enforcing religious conformity; that is, he justifies the act of Louis XIV. In this matter he was not advanced beyond his times; but, whatever may have been his theory of the lawfulness of persecution, his conduct towards the Protestants was such as to obtain for him the praise even of his opponents.

Hitherto we have seen Bossuet labouring incessantly to reconcile the Huguenots of France to the established religion. But, about this time, he took part in a more grand and comprehensive measure, sanctioned by the Emperor, and some other sovereign princes of Germany, for the reunion of the great body of the Lutherans throughout Europe with the Roman Catholic Church. They engaged the Bishop of Neustadt to open a communication with Molanus, a Protestant doctor of high reputation in Hanover. With these negotiators were afterwards joined Leibnitz on the part of the Protestants, and Bossuet on that of the Roman Catholics. Between these two great men the correspondence was carried on for ten years, in a spirit worthy of themselves and the cause in which they were engaged; and it terminated, as probably they both expected that it would terminate, in leaving the two Churches in the same state of separation in which it found them.

It would have been well for the fame of Bossuet if the course of his latter days had been marked only by this defeat,—if it had not been signalized, when grey hairs had increased the veneration which his genius and services had procured him, by an inglorious victory over a weak woman, and a friend. The history of Madame Guyon, and the revival of mysticism under the name of Quietism, principally by her means, will more properly be found in a Life of Fenelon. The

part which Bossuet took in the proceedings respecting her must be here very briefly noticed. As universal referee in matters of religion, he was called upon to examine her doctrines, which began to excite the jealousy of the Church. His conduct towards her, in the first instance, was mild and forbearing; but either zeal or anger betrayed him at length into a cruel persecution of this amiable visionary. Fenelon, who had partly adopted her views of Christian perfection, and thoroughly admired her Christian character, was required by Bossuet to surrender to him at once his opinions and his feelings. Fenelon was willing to do much, but would not consent to sacrifice his integrity to the offended pride of the irritated prelate. He defended his opinions in print, and the points in debate were, by his desire, referred to the Pope; and to him they should in common decency have been left: but we are disgusted with a detail of miserable intrigues, carried on in the council appointed by the Pope to examine the matter, and of vehement remonstrances with which his holiness himself was assailed, with the avowed object of extorting a reluctant condemnation. The warmest friends of Bossuet do not attempt to defend him on the plea that these things were done without his concurrence; they insist only on his disinterested zeal for religion. But let it be remembered, that this interference with Papal deliberation proceeded from one who believed the Vicar of Christ to be solemnly deciding, with the aid of the Holy Spirit, a point of faith for the benefit of the whole Catholic Church. Bossuet triumphed; and from that moment sunk perceptibly in the general esteem of his countrymen.

During the few remaining years of his life he maintained his wonted activity, and in his last illness we find with pleasure that the Bible was his companion, and that he could employ his intervals of repose from severe suffering in composing a commentary on the 23d psalm. He died April 12, 1704, in his 76th year.

The authority which Bossuet acquired was such, that he may be said not only to have guided the Gallican Church during his life, but in some measure to have left upon it the permanent impression of his own character. Of this authority no adequate notion can be formed from the preceding sketch. Few even of his works, which fill twenty volumes quarto, have been noticed. It should, however, be mentioned that he was employed by Louis XIV. in an attempt to overcome the religious scruples of James II., whose conscience revolted from that exercise of the prerogative in favour of the Protestant Church, which his restoration to the throne would have required. The laboured and

somewhat extraordinary letter which Bossuet wrote on this occasion is dated May 22, 1693.

His countrymen claim for Bossuet an exalted place among historians, orators, and theologians. The honours bestowed by them on his ‘Introduction to Universal History’ have been confirmed by more impartial judges ; and, even when unsupported by reference to the age in which it was written, it stands forth on its own merits as a noble effort of a comprehensive and penetrating mind. His Funeral Orations come to us recommended by the judgment of Voltaire, who ascribes to Bossuet alone, of all his contemporaries, the praise of real eloquence. The English reader will often be rewarded by passages, which in oratorical power have seldom been surpassed, and which may induce him to forgive much that is cold, inflated, and unnatural. But the Orations must be considered also as Christian discourses delivered by a minister of the Gospel from a Christian pulpit. They were composed, for the most part, to grace the obsequies of royal persons, and are, in fact, dedicated to the honour and glory of kings and princes. A text from Scripture is the peg on which is hung every thing which can minister to human pride, and dignify the vanities of a court ; and the effect is but slightly impaired by well-turned phrases, proper to the occasion, on the nothingness of earthly things. But the orator is not content with general declamation, with prostrating himself before his magnificent visions of ancient pedigrees ;—he descends to the meanest personal flattery of the living and the dead. When the Duchess of Orleans was laid in her coffin, her friends might hope that her frailties would be buried with her ; but they could hardly expect that a Christian monitor should hold her forth as an exquisite specimen of female excellence, the glory of France, whom Heaven itself had rescued from her enemies to present as a precious and inestimable gift to the French nation. But on this occasion Bossuet was not yet perfect in his art, or the subject was not sufficiently disgraceful to draw forth all his powers. When afterwards called to speak over the dead body of the Queen, whose heart had withered under the wrongs which a licentious husband, amidst external respect, had heaped upon her, he finds it a fitting opportunity to pronounce at the same time a panegyric on the King. He recounts the victories won by the French arms, and ascribes them all to the prowess of his hero. But Louis is not only the taker of cities, he is the conqueror of himself ; and the royal sensualist is praised for the government of his passions, the despot for his clemency and justice, and the grasping conqueror for his moderation.

The controversial writings of Bossuet deserve more regard than either his History or his Orations, if the importance of a book is to be measured by the extent and permanency of its effects. The Exposition of the Doctrines of the Roman Catholic Church, one of the shortest, but perhaps the most notable, of his theological works, was published under circumstances which gave occasion to a story of mysterious suppression and alteration. But a more serious charge has been brought against the author, of having deliberately misrepresented the doctrines of his Church, in order to entrap the Protestants. So grave an accusation ought not to be lightly entertained; and though suspicion is excited by symptoms of disingenuous management in the controversy, to which the publication gave birth; and though it appears to be demonstrable that the Roman Catholic religion, as commonly professed, and that many of its doctrines, as expressed or implied in some of its authorised formularies, differ essentially from the picture which Bossuet has drawn, yet it should at least be remembered that the book itself was eventually, though tardily, sanctioned by the highest authority in the Church. It is possible that Bossuet may by his Exposition have converted many beside Turenne; but there can be no doubt that he has wrought an extensive, though a less obvious, change within the bosom of his own Church. The high authority of his name would give currency to his opinions on any subject connected with religion; and many sincere Roman Catholics, who had felt the objections urged against certain practices and dogmas of their own Church, would rejoice to find, on the authority of Bossuet, that they were not obliged to own them.

The charge of insincerity has been extended beyond the particular instance to the general character of the Bishop; and it has been asserted that he held, in secret, opinions inconsistent with those which he publicly professed. This charge, which is destitute of all proof, seems to have been the joint invention of over-zealous Protestants and pretended philosophers.

Enough has been shown to justify us in supposing that he was not one of those rare characters which can break loose from all the obstacles that oppose themselves to the simple love and uncompromising search of truth. Some men, like his illustrious countryman Du Pin, struggle to be free. It should seem that Bossuet, if circumstances fettered him, would not be conscious of his thraldom; that he would exert all the energies of his powerful mind, not to escape from his prison, but to render it a tenable fortress, or a commodious dwelling. It would be foolish and unjust to infer from this that he would

persevere through life in deliberately maintaining what he had discovered to be false, on the most momentous of all subjects.

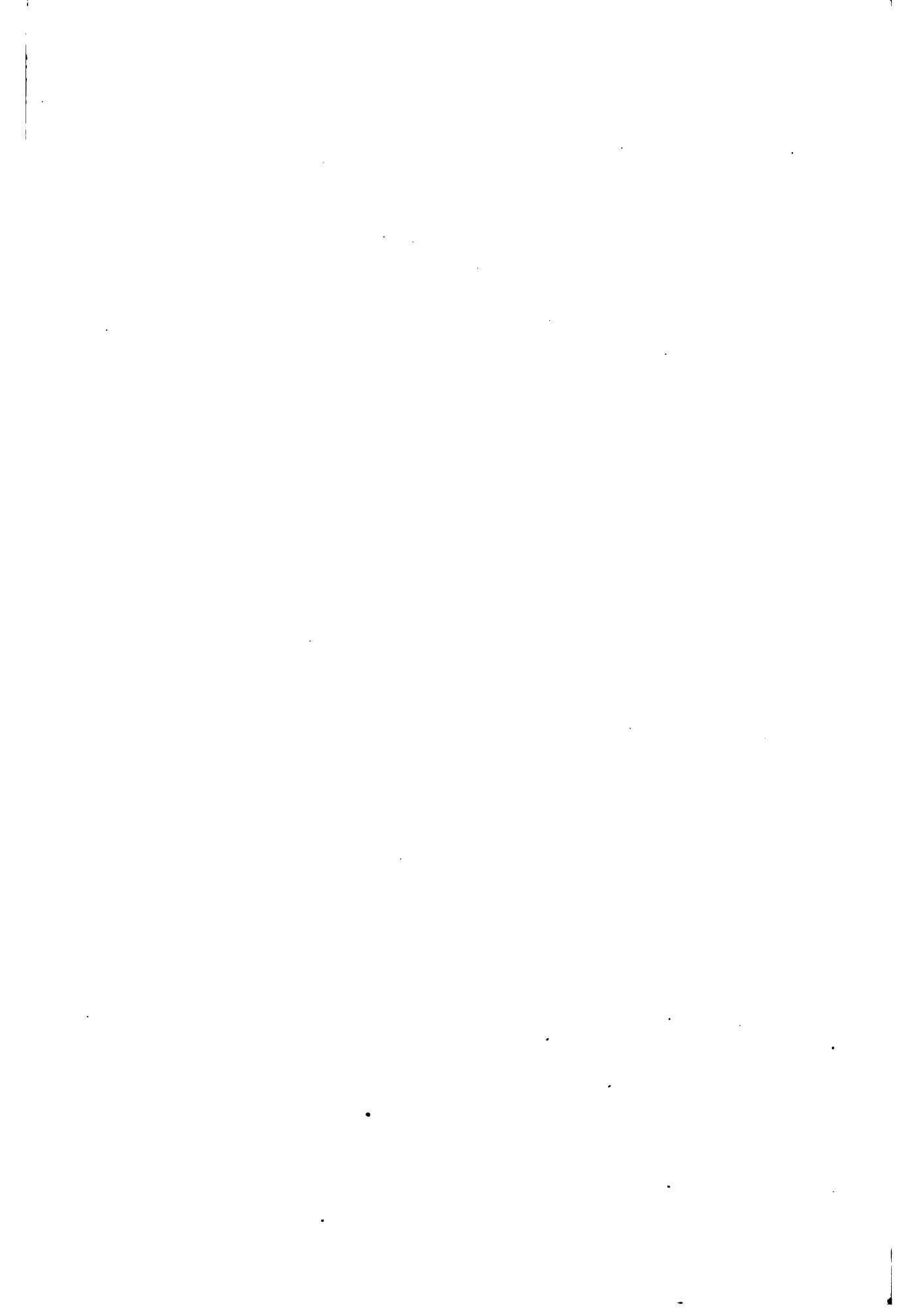
A complete catalogue of his works may be found at the end of the *Life of Bossuet* in the *Biographie Universelle*. The Life itself, which is obviously written by a partial friend, contains much information in a small compass. The affair of Quietism, and the contest between Bossuet and Fenelon, are minutely detailed with great accuracy in the *Life of Fenelon* by the Cardinal de Bausset, whose impartiality seems to have been secured by the profound veneration which he entertained for each of the combatants, though the impression left on the reader's mind is not favourable to the character of Bossuet.

AMONG the genealogists who wasted their ingenuity to fabricate an imposing pedigree for Lorenzo de Medici, some pretended to derive his origin from the paladins of Charlemagne, and others to trace it to the eleventh century. But it is well ascertained that his ancestors only emerged from the inferior orders of the people of Florence in the course of the fourteenth century, when, by engaging in great commercial speculations, and by signalizing themselves as partisans of the populace of that republic, they speedily acquired considerable wealth and political importance.

Giovanni di Bicci, his great grandfather, may be regarded as the first illustrious personage of the family, and as the author of that crafty system of policy, mainly founded on affability and liberality, by which his posterity sprung rapidly to overwhelming greatness. By an assiduous application to trade he made vast additions to his paternal inheritance; by flattering the passions of the lowest classes he obtained the highest dignities in the state. He died in 1428, deeply regretted by his party, and leaving two sons, Cosmo and Lorenzo, from the latter of whom descended the Grand Dukes of Tuscany.

Cosmo was nearly forty when he succeeded to the riches and popularity of his father; and he had not only conducted for several years a commercial establishment which held counting-houses in all the principal cities of Europe and in the Levant, but had also participated in the weightier concerns of government. The form of the Florentine constitution was then democratical: the nobility had been long excluded from the administration of the republic; and the citizens, though divided into twenty-one guilds, or corporations of arts and trades, from seven of which alone the magistracy were chosen, had, however, an equal share in the nomination of the magistrates, who were changed every two months. The lower corporations, owing principally to the manœuvres of Salvestro de Medici, had risen in 1378 against the higher, demanding a still more complete equality, and had taken the direction of the commonwealth into their own hands; but after having raised a carder of wool to the supreme







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power, and involved themselves in the evils of anarchy, convinced at last of their own incapacity, they had again submitted to the wiser guidance of that kind of burgher-aristocracy which they had subverted ; and that party, headed by the Albizzi and some other families of distinction, had, ever since 1382, governed the state with unexampled happiness and glory. The republic had been aggrandized by the important acquisition of Leghorn, Pisa, Arezzo, and other Tuscan cities ; its agriculture was in the most prosperous condition ; its commerce had received a prodigious developement ; its decided superiority in the cultivation of literature, the sciences, and the arts, had placed it foremost in the career of European civilization ; and its generous but wise external policy had constituted it as the guardian of the liberties of Italy.

To this beneficent administration the aspiring Cosmo had long offered a troublesome opposition ; and he now succeeded in ensnaring it into a ruinous war with Lucca, by which he obtained the double object of destroying its popularity, and of employing considerable sums of money with unusual profit. But the reverses of the republic were attributed to a treasonable correspondence between him and the enemy, and in 1433 he was seized and condemned to ten years' banishment, having averted capital punishment by a timely bribe. The absence of a citizen who spent more than a great king in acts of piety, benevolence, and liberality, was, however, severely felt in the small city of Florence, and the intelligence of the honours he received everywhere in his exile raised him still more in public estimation. The number of his friends increased, indeed, so rapidly, that at the September elections in the following year they completely defeated the ruling party, and chose a set of magistrates by whom he was immediately recalled. This event, erroneously considered as a victory of the people over an aristocracy, was, properly speaking, a triumph of the populace over the more educated classes of the community, and it proved fatal to the republic. Placed by fame, wealth, and talent, at an immeasurable elevation above the obscure materials of his faction, from the moment of his return to that of his death, August, 1464, Cosmo exercised such an influence in the state, that, though he seldom filled any ostensible office, he governed it with absolute authority by means of persons wholly subservient to his will. But, under the pretence of maintaining peace and tranquillity, he superseded its free institutions by a junto invested with dictatorial power ; he caused an alarming number of the most respectable citizens to be banished, ruined by confiscation, or even put to death, on the slightest suspicion that by their wealth or connexions they might oppose his schemes of ambition ; and he laboured with indefatigable zeal to enslave his own confiding countrymen, not only

by spreading secret corruption at home, but also by changing the foreign policy of his predecessors, and helping his great friend, Francesco Sforza, and other usurpers, to crush the liberties of neighbouring states.

Cosmo is nevertheless entitled to the grateful recollections of posterity for the efficient patronage he afforded learning and the arts, though he evidently carried it to excess as a means of promoting his political designs. He was profuse of favours and pensions to all who cultivated literature or philosophy with success ; he bought at enormous prices whatever manuscripts or masterpieces of art his agents could collect in Europe or Asia ; he ornamented Florence and its environs with splendid palaces, churches, convents, and public libraries. He died in the seventy-fifth year of his age, just after a decree of the senate had honoured him with the title of Father of his country, which was subsequently inscribed on his tomb.

Lorenzo de Medici, the subject of the present memoir, was born at Florence on the 1st of January, 1448. His father was Piero, the son and successor of Cosmo : his mother, Lucretia Tornabuoni, a lady of some repute, both as a patroness of learning and as a poetess. He had scarcely left the nursery when he acquired the first rudiments of knowledge under the care and tuition of Gentile d'Urbino, afterwards Bishop of Arezzo. Cristoforo Landino was next engaged to direct his education ; and Argyropylus taught him the Greek language and the Aristotelian philosophy, whilst Marsilio Ficino instilled into his youthful mind the precepts and doctrines of Plato. The rapidity of his proficiency was equal to the celebrity of his masters, and to the indications of talent that he had given in childhood. Piero, who was prevented by a precarious state of health from attending regularly to business, rejoiced at the prospect of soon having in his own son a strenuous and trusty coadjutor ; and on the death of Cosmo, the domestic education of Lorenzo being completed, he sent him to visit the principal courts of Italy, in order to initiate him into political life, and to afford him an opportunity of forming such personal connexions as might advance the interests of the family. Piero pretended to succeed to Cosmo's authority, as if it had been a part of his patrimony ; but the Florentine statesmen, who thought themselves superior to him in age, capacities, and public services, disdained to pay him the same deference they had shown the more eminent abilities of his father. Besides, Cosmo had taken especial care to conciliate the esteem and affection of his countrymen. He had never refused gifts, loans, or credit to any of the citizens, and never raised his manners or his domestic establishment above the simplicity of common life. But Piero seemed to have no regard for the feelings of others : he ruined

several merchants by attempting to withdraw considerable capital from commerce ; he allowed his subordinate agents to make a most profligate and corrupt monopoly of government ; and he shocked the republican notions of his countrymen by seeking to marry Lorenzo into a princely family. These causes of discontent arrayed against him a formidable party, under the direction of Agnolo Acciajuoli, Niccolo Soderini, and Luca Pitti, the founder of the magnificent palace, now the residence of the Grand Duke of Tuscany. A parliament of the people rejected Piero's proposition of re-appointing the dictatorial junto, whose power expired in September, 1465. His cause was evidently lost, had his enemies continued firmly united ; but the defection of the unprincipled Luca Pitti enabled him to recover his authority, which he soon secured by banishing his opponents, and by investing five of his dependants with the right of choosing the magistracy. Lorenzo is said on this occasion to have been of great assistance to his father ; and a letter of Ferdinand, King of Naples, is still extant, in which that perfidious monarch congratulates him on the active part he had taken in the triumph, and in the consequent curtailment of popular rights.

The populace of Florence were now entertained with splendid festivals, and with two tournaments, in which Lorenzo and his brother Giuliano bore away the prizes. These tournaments form an epoch in the history of literature ; the victory of Lorenzo having been commemorated by the verses of Luca Pulci, and that of Giuliano, by a poem of Politian, which restored Italian poetry to its former splendour. About this period, 1468, Lorenzo became enamoured, or rather fancied himself enamoured, of a lady whom he described as prodigiously endowed with all the charms of her sex, and he strove to immortalize his love in song. But, whether real or supposed, his passion did not prevent him from marrying Clarice Orsini, of the famous Roman family of that name. The nuptials were celebrated on the 4th of June, 1469, on a scale of royal magnificence.

The death of Piero, which happened about the end of the same year, was not followed by any interruption of public tranquillity. The republicans were now either old or in exile ; the rising generation grew up with principles of obedience to the Medici ; and Lorenzo was easily acknowledged as the chief of the state. An attempt at revolution was made a few months afterwards at Prato, by Bernardo Nardi and some other Florentine exiles ; but the complete inertness of the inhabitants rendered it unsuccessful. Nardi and six of his accomplices were executed at Florence ; the remainder at Prato. Surrounded by a host of poets, philosophers, and artists, Lorenzo, however, left the republic under the misgovernment of its former rulers, whilst he gave himself

up to the avocations of youth, and indulged an extraordinary taste for pompous shows and effeminate indulgence, which had a most pernicious influence on the morals of his fellow-citizens. The ostentatious visit which his infamous friend Galeazzo Sforza paid him in 1471, with a court sadly celebrated for its corruption and profligacy, is lamented by historians as one of the greatest disasters that befel the republic.

Lorenzo went soon afterwards on a deputation to Rome, for the purpose of congratulating Sixtus IV. on his elevation to the papal chair. He met with the kindest reception ; was made treasurer of the Holy See, and honoured with other favours ; but he could not obtain a cardinal's hat for his brother Giuliano. Accustomed to have his wishes readily gratified, he could not brook the refusal, and he sought his revenge in constantly thwarting the Pope in his politics, whether they tended to the advancement of his nephews, or to the liberty and independence of Italy. A disagreement, which arose in 1472, between the city of Volterra and the republic of Florence, afforded another instance of the peremptoriness of his character. He, at first, made some endeavours to convince the inhabitants of Volterra of their imprudence ; but finding that the exasperated citizens rejected his advice, he prevailed on the Florentine government to repress them by force, though his uncle Tomaso Soderini and other statesmen of more experience strongly recommended conciliatory measures. An army was accordingly sent under the command of the Count of Urbino, which, after obtaining admission into the unfortunate city by capitulation, despoiled and plundered its inhabitants for a whole day.

Though, on his first succeeding to his father, Lorenzo did not attempt to exercise the sovereign authority in person, he assumed it by degrees, in proportion as he advanced in manhood ; and he even became so jealous of all those from whom any rivalry might be feared, that he depressed them to the utmost of his power. His brother, less ambitious and less arrogant than himself, tried to stop him in his tyrannical career ; but Giuliano was five years younger : his representations had no effect ; and these vexatious proceedings gave origin to the conspiracy of the Pazzi. The parties engaged in this famous attempt were several members of the distinguished family of the Pazzi, whom Lorenzo had injured in their interests as well as in their feelings ; Girolamo Riario, a nephew of the Pope, whose hatred he had excited by continual opposition to his designs ; Francesco Salviati, Archbishop of Pisa, whom he had prevented from taking possession of his see ; and several other individuals of inferior note, who were either moved by private or public wrongs. After vain endeavours to seize the two brothers together, the conspirators resolved to execute their enterprize in the cathedral of Florence, on the 26th

of April, 1478, in the course of a religious ceremony at which they were both to be present. At the moment that the priest raised the host, and all the congregation bowed down their heads, Giuliano fell under the dagger of Bernardo Bandini, whilst Lorenzo was so fortunate as to escape, and shut himself up in the sacristy until his friends came to his assistance. A simultaneous attack on the palace of government failed of success, and the Archbishop Salviati, who had directed it, was hung out of the palace windows in his prelatical robes. All those who were implicated in the conspiracy, or connected in any way with the conspirators, were immediately put to death. Lorenzo exerted all his influence to obtain those who had taken refuge abroad ; and his wrath was not appeased until the blood of two hundred citizens was shed. The Pope pronounced a sentence of excommunication against him and the chief magistrates for having hanged an archbishop ; and sent a crusade of almost all Italy against the republic, requiring that its leaders should be given up to suffer for their scandalous misdemeanour. The superior forces of the enemy ravaged the Florentine territory with impunity : the people began to murmur against a war in which they were involved for the sake of an individual ; and Lorenzo could not but see that his situation became every day more critical and alarming. But having been confidently apprized that Ferdinand was disposed to a reconciliation with him, he took the resolution of going to Naples, as ambassador of the republic, in the hope of detaching the King from the league, and of inducing him to negotiate a peace with the Pope. Through his eloquence and his gold, he was successful in his mission ; and after three months' absence, at the beginning of March, 1480, he returned to Florence, where he was received with the greatest applause and exultation by the populace, to whom the dangers incurred by him in his embassy had been artfully exaggerated.

This ebullition of popular favour encouraged Lorenzo to complete the consolidation of his power by fresh encroachments on the rights of his countrymen. In 1481 another plot was formed against him ; but his watchful agents discovered it, and Battista Frescobaldi, with two of his accomplices, were hanged. Tranquil and secure at home, as well as peaceful and respected abroad, he now diverted his mind from public business to literary leisure, and spent his time in the society of men of talent, in philosophical studies, and in poetical composition. But his rational enjoyments had a short duration. Early in 1492 he was attacked by a slow fever, which, combined with his hereditary complaints, warned him of his approaching end. Having sent to request the attendance of the famous Savonarola, to whom he was desirous of making his confession, the austere Dominican readily com-

plied with his wish, but declared he could not absolve him unless he restored to his fellow-citizens the rights of which he had despoiled them. To such a reparation Lorenzo would not consent; and he died without obtaining the absolution he had invoked. Piero, the eldest of his three sons, was deprived of the sovereignty in consequence of the reaction that the eloquent sermons of Savonarola produced in the morals of Florence. Giovanni, whom Innocent VIII., by a prostitution of ecclesiastical honours unprecedented in the annals of the church, had raised to the Cardinalship at the early age of thirteen, became Pope under the name of Leo X., and gave rise to the Reformation by his extreme profligacy and extravagance; and Giuliano, who afterwards allied himself by marriage to the royal House of France, was elevated to the dignity of Duke of Nemours.

Lorenzo de Medici has been extolled with immoderate applause as a poet, a patron of learning, and a statesman. His voluminous poetical compositions, embracing subjects of love, rural life, philosophy, religious enthusiasm, and coarse licentiousness, exhibit an uncommon versatility of genius, a rich imagination, and a remarkable purity of language; but in spite of the exaggerated eulogies lavished on them by his own flatterers and by those of his dependants, they never obtained any popularity, and are now nearly buried in oblivion. His efforts for the diffusion of knowledge and taste shine more conspicuous; in this laudable course he followed the traces of Cosmo and of his father. It is, however, impossible to conceive any strong reverence or respect for his memory without forgetting his political conduct, which is far from deserving any praise.





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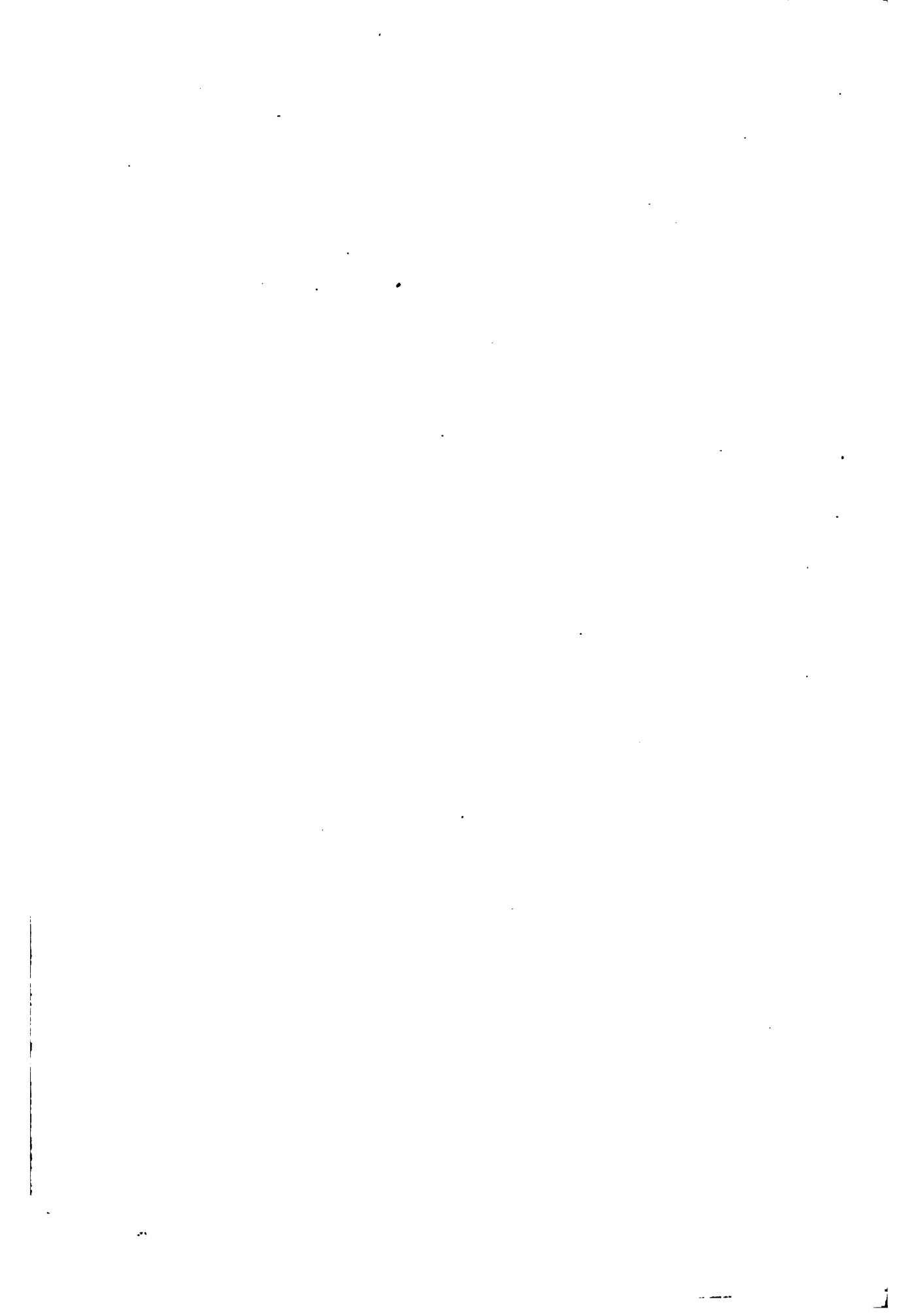
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GEORGE BUCHANAN was born in February, 1506, at a small village called Killearn, on the borders of Stirlingshire and Dumbartonshire. He came, as he says, "of a family more gentle and ancient than wealthy." His father dying, left a wife and eight children in a state of poverty. George, one of the youngest, was befriended, and, perhaps, saved from want and obscurity, by the kindness of his mother's brother, James Heriot, who had early remarked his nephew's talents, and determined to foster them by a good education. The ancient friendship between France and Scotland, cemented by their mutual hate of England, was then in full force. The Scotch respected the superiority of the French in manners, arts, and learning ; and very commonly sent the wealthier and more promising of their youth to be educated by their more polished neighbours. Accordingly Buchanan, at the age of fourteen, was sent by his uncle to the University of Paris. Here he applied himself most diligently to the prescribed course of study, which consisted principally in a careful perusal of the best Latin authors, especially the poets. This kind of learning was peculiarly suited to his taste and genius ; and he made such progress, as not only to become a sound scholar, but one of the most graceful Latin writers of modern times.

After having remained in Paris for the space of two years, which he must have employed to much better purpose than most youths of his age, the death of his kind uncle reduced him again to poverty. Partly on this account, partly from ill health, he returned to his own country, and spent a year at home. After having recruited his strength, he entered as a common soldier into a body of troops that was brought over from France by John Duke of Albany, then Regent

of Scotland, for the purpose of opposing the English. Buchanan himself says that he went into the army “to learn the art of war ;” it is probable that his needy circumstances were of more weight than this reason. During this campaign he was subjected to great hardships from severe falls of snow ; in consequence of which he relapsed into his former illness ; and was obliged to return home a second time, where he was confined to his bed a great part of the winter. But on his recovery, in the spring of 1524, when he was just entering upon his 18th year, he again took to his studies, and pursued them with great ardour. He seems to have found friends at this time rich enough to send him to the University of St. Andrews, on which foundation he was entered as a *pauper*, a term which corresponds to the servitor and sizer of the English Universities. John Mair, better known (through Buchanan*) by his Latinized name of Major, was then reading lectures at St. Andrews on grammar and logic. He soon heard of the superior accomplishments of the poor student, and immediately took him under his protection. Buchanan, notwithstanding his avowed contempt for his old tutor, must have imbibed from Major many of his opinions. He was of an ardent temper, and easy, as his contemporaries tell us, to lead whichever way his friends desired him to go ; he was also of an inquiring disposition, and never could endure absurdities of any kind. This sort of mind must have found great delight in the doctrines which Major taught. He affirmed the superiority of general councils over the papacy, even to the depriving a Pope of his spiritual authority in case of misdemeanour ; he denied the lawfulness of the Pope’s temporal sway ; he held that tithes were an institution of mere human appointment, which might be dropped or changed at the pleasure of the people ; he railed bitterly against the immoralities and abominations of the Romish priesthood. In political matters his creed coincides exactly with Buchanan’s published opinions,—that the authority of kings was not of divine right, but was solely through the people, for the people ; that by a lawful convention of states, any king, in case of tyranny or misgovernment, might be controlled, divested of his power, or capitally executed according to circumstances. But if Major, who was a weak man and a bad arguer, had such weight with Buchanan, John Knox, the celebrated Scottish reformer, who was a fellow-student with him at

* See his epigram. “In Johannem solo cognomento Majorem ut ipse in fronte libri scripsit.”

Cum scateat nugis solo cognomine Major,
Nec sit in immenso pagina sana libro ;
Non minem titulis quod se veracibus ornet ;
Nec semper mendax fingere Creta solet.

The book was “ane most fulish tractate on ane most emptie subject.”

St. Andrews, must have had still more. They began a strict friendship at this place, which only ended with their lives. Knox speaks very highly of him at a late period of his own life: “That notabil man, Mr. George Bucquhanane, remainis alyve to this day, in the yeir of God 1566 yeares, to the glory of God, to the gret honor of this natioun, and to the comfort of thame that delyte in letters and vertew. That singular work of David’s Psalmes, in Latin meeterie and poesie, besyd many uther, can witness the rare graices of God gevin to that man.” These two men speedily discovered the absurdity of the art of logic, as it was then taught. Buchanan tells us that its *proper* name was the art of sophistry. Their mutual longings for better reasonings, and better thoughts to reason upon, produced great effects in the reformation of their native country.

After Buchanan had finished his studies at St. Andrews, and taken the degree of Bachelor of Arts, he accompanied Major to Paris, where his attention was more seriously turned towards the doctrines of the reformation, which at that time were eagerly and warmly discussed; but whether from fear of the consequences, or from other motives, he did not then declare himself to be a Lutheran. For five years he remained abroad, sometimes employed, sometimes in considerable want; at the end of which time he returned to Scotland with the Earl of Cassilis, by whom he had been engaged as a travelling companion. His noble patron introduced him at the court of James V. the father of Mary Stuart. James retained him as tutor to his natural son, James Stuart, afterwards Abbot of Kelso. It has been proved that he was *not* tutor to the King’s other natural son, James Stuart, afterwards Earl of Murray and Regent of Scotland, whose first title was Prior of St. Andrews.

While he was at court, having a good deal of leisure, he amused himself with writing a pretty severe satire on the monks, to which he gives the name of “Somnium.” He feigns in this piece that Saint Francis d’Assize had appeared to him in a dream, and besought him to become a monk of his order. The poet answers, “that he is nowise fit for the purpose; because he could not find in his heart to become slavish, impudent, deceitful, or beggarly, and that moreover very few monks had the good fortune, as he understood, to reach even the gates of paradise.” This short satire was too well written, and too bitter, to pass unnoticed, and the sufferers laid their complaint before the king: but as Buchanan’s name had not been put to it, they had no proof against him, and the matter dropped. Soon after the Franciscans fell into disgrace at Court; and James himself instigated the poet to

renew the attack. He obeyed, but did not half satisfy the King's anger in the light and playful piece which he produced. On a second command to be still more severe, he produced his famous satire ‘Franciscanus,’ in which he brings all his powers of wit and poetry to bear upon the unfortunate brotherhood. The argument of the poem is as follows :—he supposes that a friend of his is earnestly desirous to become a Cordelier, upon which he tells him that he also had had a similar intention, but had been dissuaded from it by a third person, whose reasons he proceeds to relate. They turn upon the wretched morals and conduct of those who belonged to the order, as exhibited in the abominable lessons which he puts in the mouth of an ancient monk, the instructor of the novices. He does not give this man the character of a rough and ignorant priest, but makes him tell his tale cleverly, giving free vent to every refinement in evil which the age was acquainted with, and speaking the most home truths of his brethren without fear or scruple. The Latin is pure, and free from the barbarisms of the time.

After such a caustic production, it is no wonder that the party assailed made use of every means to destroy its author. The King, who was a weak and variable man, after much importunity on their part, allowed them to have Buchanan arrested in the year 1539, on the plea of heresy, along with many others who held his opinions about the state of the Scottish church. Cardinal Beatoun, above all others, used his best endeavours to procure sentence against him ; he even bribed the King to effect his purpose. But Buchanan's friends gave him timely warning of the prelate's exertions, and, as he was not very carefully guarded, he made his escape out of the window of his prison, and fled to England. He found, however, that England was no safe place for him, for at that time Henry VIII. was burning, on the same day and at the same stake, both protestant and papist, with the most unflinching impartiality. He went over, therefore, for the third time into France ; but on his arrival at Paris, finding his old enemy the Cardinal Beatoun ambassador at the French court, and being fearful that means might be taken to have him arrested, he closed with the offer of a learned Portuguese, Andrea di Govea, to become a tutor at the new college at Bourdeaux. During his residence there he composed his famous Latin Tragedies, ‘Jephthes’ and ‘Joannes Baptistes,’ and translated the Medea and Alcestis of Euripides into Latin metre, for the youth of his college. The two latter show that his acquaintance with the Greek language was by no means superficial.

After holding this situation for about three years, Buchanan went

with Gouvea, at the instance of the King of Portugal, to a lately established school at Coimbra. Before he ventured into Portugal, however, he took care to let the King know that his Franciscanus was undertaken at the command of his sovereign, and therefore ought nowise to endanger his safety in Portugal. The King promised him his protection. But he had not been at Coimbra long, before he was accused by the monks of heresy, and the King, forgetting his promise, allowed them to keep Buchanan prisoner in a convent, as they declared, for the purpose of reclaiming him. They gave him as a penance the task of translating the Psalms of David from the Vulgate into Latin verse. This he accomplished to admiration; and his production is acknowledged to surpass all works of the like sort. The metres are chiefly lyrical. He was soon after dismissed from prison, and took ship for England, and staying there but a short time, he returned again to France. Here the Marechal de Brissac intrusted him with the education of his son Timoleon de Cossé. While thus employed he studied, more particularly than he had hitherto done, the controversies of the day with regard to religion, and became most probably a confirmed protestant, though he did not openly renounce catholicism till some time afterwards. He wrote, and dedicated to his pupil, a much admired piece, entitled '*Sphœra*', during his tutorship. In the year 1560 he returned again to Scotland, the reformed religion being then prevalent there, and became publicly a member of the Protestant Kirk.

The most important, because the most public part of Buchanan's life now begins. Such a man could not long remain unnoticed by the great in Scotland, and Mary Stuart herself became one of his best friends. He had written for her two epithalamia, one on her marriage with the Dauphin, and one on her marriage with Lord Darnley. Her respect for his abilities was very great, and she had him appointed tutor to her son a month after he was born, in the year 1566.

It is a matter of no small wonder, that Buchanan, who was James's most influential tutor, for the three others, who were joined in the commission with him, were under his superintendence, should have educated him as he did, or made him what he was. A book which Buchanan published, and which is among the most famous of his works, '*De jure Regni apud Scotos*', being a conversation between himself and Maitland the Queen's secretary, contains (though dedicated to his royal pupil) sentiments totally at variance with all the notions of James. In it Buchanan follows the ancient models of what was thought a perfect state of policy. He proves that men were born to live socially,—that they elected kings to protect the laws which bind

them together,—that if new laws are made by kings, they must be also subjected to the opinion of the states of the nation,—that a king is the father of his people for good, not for evil,—that this was the original intention in the choice of Scottish kings,—that the crown is not necessarily hereditary, and that its transmission by natural descent but for its certainty is not defensible,—that a violation of the laws by the monarch may be punished even to the death, according to the enormity of it,—that when St. Paul talks of obedience to authorities he spoke to a low condition of persons, and to a minority in the various countries in which they were,—that it is not necessary that a king should be tried by his peers. He concludes by saying, “that if in other countries the people chose to exalt their kings above the laws, it seems to have been the evident intention of Scotland to make her kings inferior to them.” In matters of religion he rails against episcopal authority of all kinds. Now nothing can be more opposed than all this to the opinions of James, who most strongly upheld the divine right of kings, and episcopal authority. Buchanan, when he was accused of making James a pedant, declared it to be “because he was fit for nothing else.” He was a stern and unyielding master, and no sparer of the rod, even though applied to the back of royalty; and this may in some measure account for the want of influence which he had over the King’s mind. James advises his son, in his *βασιλικού δώρου* not to attend to the abominable scandals of such men as Buchanan and Knox, “who are persons of seditious spirit, and all who hold their opinions.”

It might have been well, however, for the unfortunate Charles if he had been rather more swayed by the opinions of the tutor, and less by the lessons of the pupil. In the early part of Buchanan’s tutorship he attached himself strongly to the interests of the Regent, Murray; and as the patron fell off from the interests of Mary, so did the historian, till at last he became the bitterest of her enemies. He alone has ventured to assert in print his belief of her criminal connexion with David Rizzio, in his ‘*Detectio Mariæ Reginæ*,’ published in 1571; and he was her great accuser at the court of Elizabeth, when appointed one of the commissioners to inquire into Mary’s conduct, she being a prisoner in England. Buchanan too lies under the serious charge of having forged the controverted letters, supposed to have passed between Mary and her third husband Bothwell, while she was yet the wife of Earl Darnley, from which documents it was made to appear that she was art and part in the murder of her Royal Consort. Whether he really forged these letters or not, is a question perhaps too deeply buried

in the dust of antiquity to admit of proof. He offered to swear to their genuineness, however, which was an ill return, if that were all his fault, to the kindness he had received from her. His friendship for Murray continued firm all his life ; this man was one of the few persons he seems to have been really attached to. Through the Earl's interest, Buchanan was made keeper of the Scottish seals, and a Lord of Session. Nothing is told us of his abilities as a practical politician, but it may be supposed that he was fitted for the office he held, for Murray was very careful in the choice of his public servants.

Buchanan's last work, on which he spent the remaining fourteen years of his life, is yet to be spoken of,—his History of Scotland. In this, which like the rest of his productions was written in Latin, he has been said to unite the elegance of Livy with the brevity of Sallust. With this praise, however, and with that which is due to his lively and interesting way of relating a story, our commendations of this work must begin and end. As a history, it is valueless. The early part is a tissue of fable, without dates or authorities, as indeed he had none to give ; the latter is the work of an acrimonious and able partisan, not of a calm inquirer and observer of the times in which he lived. The work is divided into four books. The first three contain a long dissertation on the derivation of the name of Britain,—a geographical description of Scotland, with some poetical accounts of its ancient manners and customs,—a treatise on the ancient inhabitants of Britain, chiefly taken from the traditional accounts of the bards, and the fables of the monks engrafted on them, on the vestiges of ancient religions, and on the resemblances of the various languages of different parts of the island. The real history of Scotland does not begin till the fourth book ; it consists of an account of a regular succession of one hundred and eight kings, from Fergus I. to James VI., a space extending from the beginning of the sixth century to the end of the sixteenth. The apocryphal nature of the greater part of these monarchs is now so fully admitted, that it is unnecessary to dilate upon them. Edward I. as is well known, destroyed all the genuine records of Scottish history which he could find. Buchanan, instead of rejecting the absurd traditional tales of bards and monks, has merely laboured to dress up a creditable history for the honour of Scotland, and to “ clothe with all the beauties and graces of fiction, those legends which formerly had only its wildness and extravagance.”

This work, and his *De jure Regni apud Scotos*, he published at the same time, very shortly before his death ; and, while he was on his death-bed, the Scottish Parliament condemned them both as false and

sedition books. We may lay part of this condemnation to James's account. It is not probable that he would allow so much abuse of his mother as they contained, directly and indirectly, to pass without some public stigma. There remain to be noticed only two small pieces of this author in the Scottish language, one a grievous complaint to the Scottish peers, arising from the assassination of the Earl of Murray; the other, a severe satire against Secretary Maitland, for the readiness with which he changed from party to party: this has the title of 'Chameleon.'

Buchanan died at the good old age of seventy-four, in his dotage as his enemies said, but in full vigour of mind as his last great work, his History, has proved. Much has been said in his dispraise by enemies of every class, his chief detractors being the partisans of Mary Stuart and the Romish priesthood. The first of these accuse him of ingratitude to Major, Mary, Morton, Maitland, and to others of his benefactors; of forging the letters above-mentioned, and of perjury in offering to swear to them. The latter accuse him of licentiousness, of drunkenness, and falsehood; and one of them has descended so far as to quarrel with his personal ugliness. Of these charges many are, to say the least, unproved; many appear to be altogether untrue. But his fame rests rather on his persevering industry, his excellent scholarship, and his fine genius, than upon his moral qualities. Buchanan wrote his own life in Latin two years before his death. To this work, to Mackenzie's 'Lives and Characters of the most eminent writers of the Scots Nation,' to the Biographia Britannica, and the numerous authorities on insulated points there quoted, we may refer those who wish to pursue this subject. Buchanan's works were collected and edited by the grammarian Ruddiman, and printed by Freebairn, at Edinburgh, in the year 1715, in two volumes, folio.



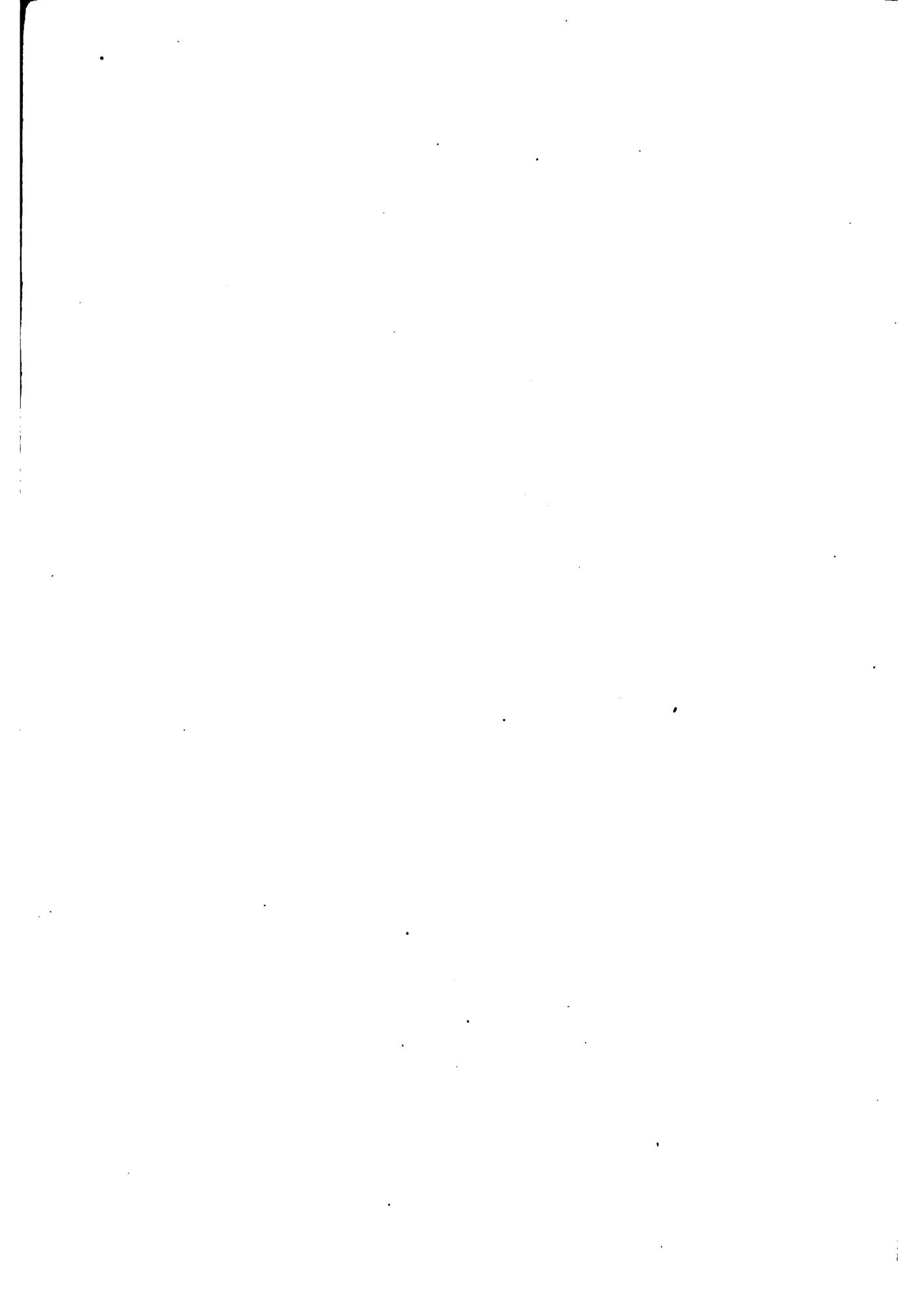
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THE SOCIETY FOR THE
PROPAGATION OF USEFUL KNOWLEDGE

From the original collection by Sir Isaac
Newton in the Museum at the Royal Society

Under the Superintendence of the Society for the Diffusion of Useful Knowledge

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His services in Poitou were not acknowledged by any reward from the government, for Louis XIV. had begun to look coldly upon him ; but it was not his fortune to remain long in obscurity. Amongst the visitors at his uncle's house, whose friendship he had the happiness to gain, was the Duke de Beauvilliers, a man who could live at the court of Louis without ceasing to live as a Christian. This nobleman was appointed in the year 1689 Governor of the Duke of Burgundy, the grandson of Louis, and heir, after his father the Dauphin, to the throne of France. His first act was to appoint Fenelon preceptor to his royal charge, then in his eighth year, and already distinguished for the frightful violence of his passions, his insolent demeanour, and tyrannical spirit. The child had, however, an affectionate heart and a quick sense of shame. Fenelon gained his love and confidence, and used his power to impress upon him the Christian's method of self-government. His headstrong pupil was subdued, not by the fear of man, but by the fear of God. In the task of instruction less difficulty awaited him ; for the young prince was remarkably intelligent and industrious. The progress of a royal student is likely to be rated at his full amount by common fame ; but there is reason to believe that in this case it was rapid and substantial.

In 1694 he was presented to the Abbey of St. Valery, and two years afterwards promoted to the Archbispopric of Cambray, with a command that he should retain his office of preceptor, giving personal attendance only during the three months of absence from his diocese which the Canons allowed. In resigning his abbey, which from conscientious motives he refused to keep with his archbispopric, he was careful to assign such reasons as might not convey an indirect censure of the numerous pluralists among his clerical brethren. Probably this excess of delicacy, which it is easy to admire and difficult to justify, was hardly requisite in the case of many of the offenders. One of them, the Archbishop of Rheims, when informed of the conscientious conduct of Fenelon, made the following reply : “ M. de Cambray with his sentiments does right in resigning his benefice, and I with my sentiments do very right in keeping mine.” This mode of defence is capable of very general application, and is in fact very generally used, being good for other cases beside that of pluralities.

This preferment was the last mark of royal favour which he received. Louis was never cordially his friend, and there were many at court eager to convert him into an enemy. An opportunity was afforded by Fenelon's connexion with Madame Guyon.

It is well known that this lady was the great apostle of the Quietists,

a sect of religionists, so called, because they studied to attain a state of perfect contemplation, in which the soul is the passive recipient of divine light. She was especially noted for her doctrine of pure love ; she taught that Christian perfection consisted in a disinterested love of God, excluding the hope of happiness and fear of misery, and that this perfection was attainable by man. Fenelon first became acquainted with her at the house of his friend the Duke de Beauvilliers, and, convinced of the sincerity of her religion, was disposed to regard her more favourably from a notion that her religious opinions, against which a loud clamour had been raised, coincided very nearly with his own. It has been the fashion to represent him as her convert and disciple. The truth is, that he was deeply versed in the writings of the later mystics ; men who, with all their extravagance, were perhaps the best representatives of the Christian character to be found among the Roman Catholics of their time. He considered the doctrine of Madame Guyon to be substantially the same with that of his favourite authors ; and whatever appeared exceptionable in her expositions, he attributed to loose and exaggerated expression natural to her sex and character.

The approbation of Fenelon gave currency to the fair Quietist amongst orthodox members of the church. At last the bishops began to take alarm : the clamour was renewed, and the examination of her doctrines solemnly intrusted to Bossuet and two other learned divines. Fenelon was avowedly her friend ; yet no one hitherto had breathed a suspicion of any flaw in his orthodoxy. It was even during the examination, and towards the close of it, that he was promoted to the Archbishopric of Cambray. The blow came at length from the hand of his most valued friend. He had been altogether passive in the proceedings respecting Madame Guyon. Bossuet, who had been provoked into vehement wrath, and had resolved to crush her, was sufficiently irritated by this temperate neutrality. But when Fenelon found himself obliged to publish his ‘Maxims of the Saints,’ in which, without attacking others, he defends his own views of some of the controverted points, Bossuet, in a tumult of zeal, threw himself at the feet of Louis, denounced his friend as a dangerous fanatic, and besought the King to interpose the royal arm between the Church and pollution. Fenelon offered to submit his book to the judgment of the Pope. Permission was granted in very ungracious terms, and presently followed by a sentence of banishment to his diocese. This sudden reverse of fortune, which he received without even whispering a complaint, served to show the forbearance and meekness of his spirit, but it deprived him of none of his powers. An animated con-

troversy arose between him and Bossuet, and all Europe beheld with admiration the boldness and success with which he maintained his ground against the renowned and veteran disputant; and that, too, in the face of fearful discouragement. The whole power of the court was arrayed against him, and he stood alone; for his powerful friends had left his side. The Cardinal de Noailles and others, who had in private expressed unqualified approbation of his book, meanly withheld a public acknowledgment of their opinions. Whilst his enemy enjoyed every facility, and had Louis and his courtiers and courtly bishops to cheer him on, it was with difficulty that Fenelon could find a printer who would venture to put to the press a work which bore his name. Under these disadvantages, harassed in mind, and with infirm health, he replied to the deliberate and artful attacks of his adversary with a rapidity which, under any circumstances, would have been astonishing. He was now gaining ground daily in public opinion. The Pope also, who knew his merit, was very unwilling to condemn. His persecutors were excited to additional efforts. He had already been banished from court; now he was deprived of the name of preceptor, and of his salary,—of that very salary which some time before he had eagerly offered to resign, in consideration of the embarrassed state of the royal treasury. The flagging zeal of the Pope was stimulated by threats conveyed in letters from Louis penned by Bossuet. At length the sentence of condemnation was obtained; but in too mild a form to satisfy altogether the courtly party. No bull was issued. A simple brief pronounced certain propositions to be erroneous and dangerous, and condemned the book which contained them, without sentencing it in the usual manner to the flames.

It is needless to say that Fenelon submitted. He published without delay the sentence of condemnation, noting the selected propositions, and expressing his entire acquiescence in the judgment pronounced; and prohibited the faithful in his diocese from reading or having in their possession his own work, which up to that moment he had defended so manfully. Protestants, who are too apt in judging the conduct of Roman Catholics, to forget every thing but their zeal, have raised an outcry against his meanness and dissimulation. Fenelon was a sincere member of a Church which claimed infallibility. We may regret the thraldom in which such a mind was held by an authority from which the Protestant happily is free; but the censure which falls on him personally for this act is certainly misplaced.

The faint hopes which his friends might have cherished, that when the storm had passed he would be restored to favour, were soon extinguished by an event, which, whilst it closed against him for ever the doors of

the palace, secured him a place in history, and without which it is probable that he would never have become the subject even of a short memoir.

A manuscript which he had intrusted to a servant to copy, was treacherously sold by this man to a printer in Paris, who immediately put it to the press, under the title of Continuation of the Fourth Book of the Odyssey, or Adventures of Telemachus, Son of Ulysses, with the royal privilege, dated April 6, 1699. It was told at court that the forthcoming work was from the pen of the obnoxious archbishop; and before the impression of the first volume was completed, orders were given to suppress it, to punish the printers, and seize the copies already printed. A few however escaped the hands of the police, and were rapidly circulated. One of them, together with a copy of the remaining part of the manuscript, soon after came into the possession of a printer at the Hague, who could publish it without danger.

So eager was the curiosity which the violent proceedings of the French court had excited, that the press could hardly be made, with the utmost exertion, to keep pace with the demand. Such is the history of the first appearance of Telemachus.

Louis was persuaded to think that the whole book was intended to be a satire on him, his court, and government; and the world was persuaded for a time to think the same. So, whilst the wrath of the King was roused to the uttermost, all Europe was sounding forth the praises of Fenelon. The numerous enemies of Louis exulted at the supposed exhibition of his tyranny and profligate life. The philosophers were charmed with the liberal and enlightened views of civil government which they seemed to discover. It is now well known that the anger and the praise were alike undeserved. The book was probably written for the use of the Duke of Burgundy, certainly at a time when Fenelon enjoyed the favour of his sovereign, and was desirous to retain it. He may have forgotten that it was impossible to describe a good and a bad king, a virtuous and a profligate court, without saying much that would bear hard upon Louis and his friends. As for his political enlightenment, it is certain that he had his full share of the monarchical principles of his time and nation. He wished to have good kings, but he made no provision for bad ones. It is difficult to believe that Louis was seriously alarmed at his notions of political economy. That science was not in a very advanced state; but no one could fear that a prince could be induced by the lessons of his tutor to collect all the artificers of luxury in his capital, and drive them in a body into the fields to cultivate potatoes and cabbages, with a belief that he would thus make the country a garden, and the town a seat of the Muses.

Nothing was now left to Fenelon but to devote himself to his episcopal duties, which he seems to have discharged with equal zeal and ability. The course of his domestic life, as described by an eye-witness, was retired, and, to a remarkable degree, uniform. Strangers were courteously and hospitably received ; but his society was confined for the most part to the ecclesiastics who resided in his house. Amongst them were some of his own relations, to whom he was tenderly attached, but for whose preferment, it should be noticed, he never manifested an unbecoming eagerness. His only recreation was a solitary walk in the fields, where it was his employment, as he observes to a friend, to converse with his God. If in his rambles he fell in with any of the poorer part of his flock, he would sit with them on the grass, and discourse about their temporal as well as their spiritual concerns ; and sometimes he would visit them in their humble sheds, and partake of such refreshment as they offered him.

In the beginning of the 18th century we find him engaged at once in controversy and politics. The revival of the old dispute with the Jansenists, to whom he was strongly opposed, obliged him to take up his pen ; but in using it he never forgot his own maxim, that “ rigour and severity are not of the spirit of the Gospel.” For a knowledge of his political labours we are indebted to his biographer, the Cardinal de Bausset, who first published his letters to the Duke de Beauvilliers on the subject of the war which followed the grand alliance in the year 1701. In them he not only considers the general questions of the succession to the Spanish monarchy, the objects of the confederated powers, and the measures best calculated to avert or soften their hostility, but even enters into details of military operations, discusses the merits of the various generals, stations the different armies, and sketches a plan of the campaign. Towards the close of the war he communicated to the Duke de Chevreuse heads of a very extensive reform in all the departments of government. This reform did not suppose any fundamental change of the old despotism. It was intended, doubtless, for the consideration of the Duke of Burgundy, to whose succession all France was looking forward with sanguine hopes, founded on the acknowledged excellence of his character, which Fenelon himself had so happily contributed to form. But amongst the other trials which visited his latter days, he was destined to mourn the death of his pupil.

Fenelon did not long survive the general pacification. After a short illness and intense bodily suffering, which he seems to have supported by calling to mind the sufferings of his Saviour, he died February 7th, 1715, in the sixty-fourth year of his age. No money was found in his

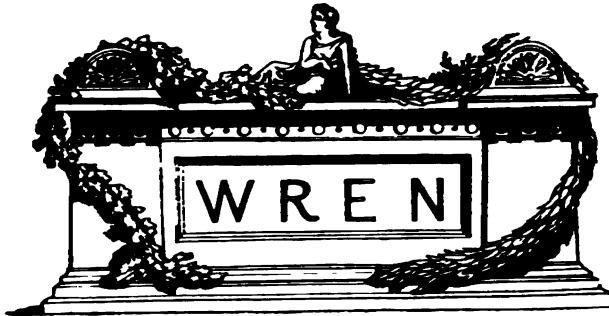
coffers. The produce of the sale of his furniture, together with the arrears of rent due to him, were appropriated, by his direction, to pious and charitable purposes.

The calumnies with which he was assailed during the affair of Quietism were remembered only to the disadvantage of their authors. The public seem eventually to have regarded him as a man who was persecuted because he refused to be a persecutor ; who had maintained, at all hazards, what he believed to be the cause of truth and justice ; and had resigned his opinion only at that moment when conscience required the sacrifice.

Universal homage was paid by his contemporaries to his talents and genius. In the grasp and power of his intellect, and in the extent and completeness of his knowledge, none probably would have ventured to compare him with Bossuet ; but in fertility and brilliancy of imagination, in a ready and dexterous use of his materials, and in that quality which his countrymen call *esprit*, he was supposed to have no superior. Bossuet himself said of him “ *Il brille d'esprit, il est tout esprit, il en a bien plus que moi.*”

It is obvious that his great work, the Adventures of Telemachus, was, in the first instance, indebted for some portion of its popularity to circumstances which had no connexion with its merits ; but we cannot attribute to the same cause the continued hold which it has maintained on the public favour. Those who are ignorant of the interest which attended its first appearance still feel the charm of that beautiful language which is made the vehicle of the purest morality and the most ennobling sentiments. In the many editions through which it passed, between its first publication and the death of the author, Fenelon took no concern. Publicly he neither avowed nor disavowed the work, though he prepared corrections and additions for future editors. All obstacles to its open circulation were removed by the death of Louis ; and in the year 1717, the Marquis de Fenelon, his great-nephew, presented to Louis XV. a new and correct edition, superintended by himself, from which the text of all subsequent editions has been taken.

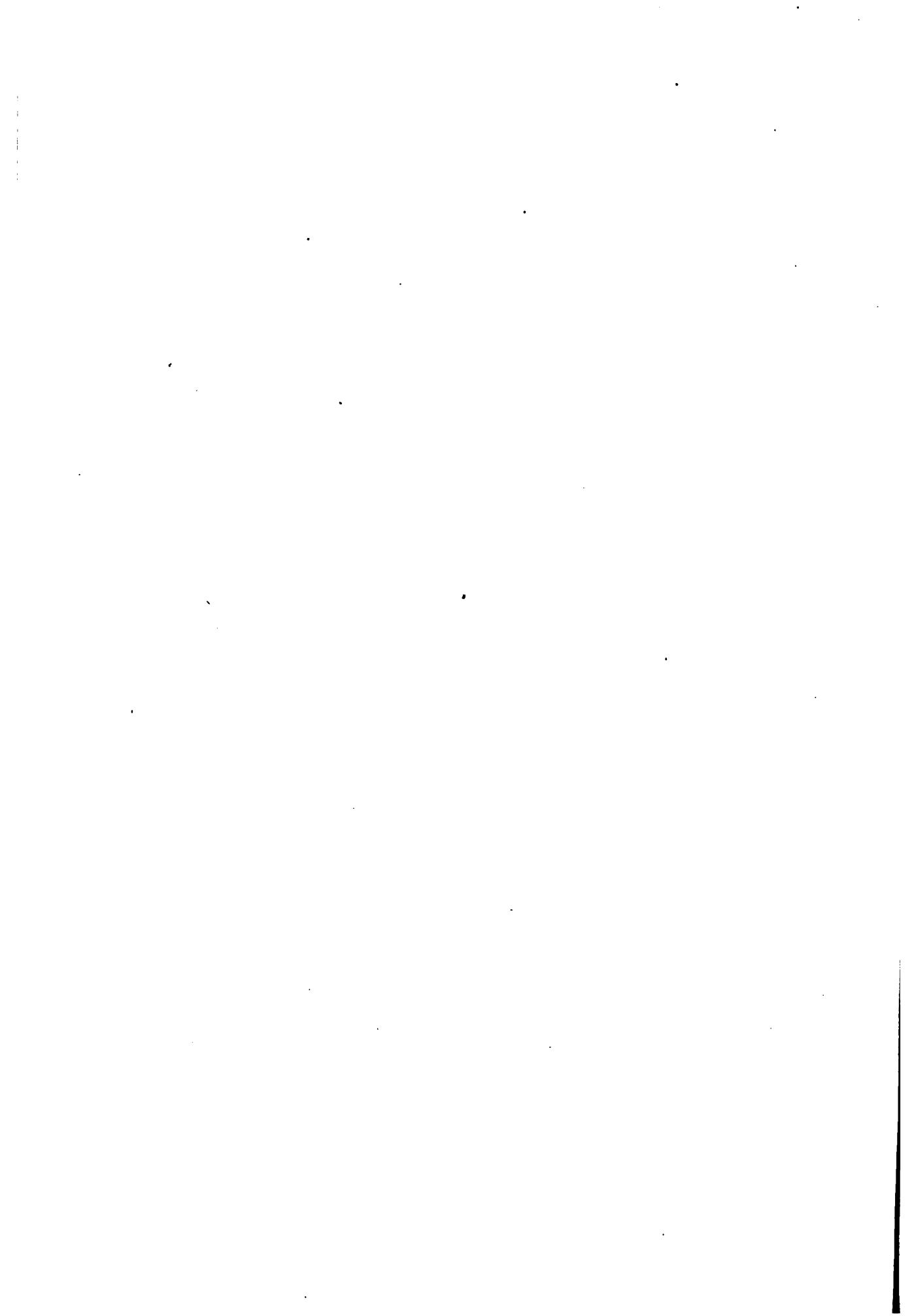
The best authority for the life of Fenelon accessible to the public is the laborious work of his biographer, the Cardinal de Bausset, which is rendered particularly valuable by the great number of original documents which appear at the end of each volume. Its value would be increased if much of the theological discussion were omitted, and the four volumes compressed into three.



CHRISTOPHER WREN, the most celebrated of British architects, was born at East Knoyle in Wiltshire, October 20, 1632. His father was Rector of that parish, Dean of Windsor, and Registrar of the Order of the Garter: his uncle, Dr. Matthew Wren, was successively Bishop of Hereford, of Norwich, and of Ely; and was one of the greatest sufferers for the royal cause during the Commonwealth, having been imprisoned nearly twenty years in the Tower without ever having been brought to trial. The political predilections of Wren's family may be sufficiently understood from these notices; but he himself, although his leaning probably was to the side which had been espoused by his father and his uncle, seems to have taken no active part in state affairs. The period of his long life comprehended a series of the mightiest national convulsions and changes that ever took place in England—the civil war—the overthrow of the monarchy—the domination of Cromwell—the Restoration—the Revolution—the union with Scotland—and, finally, the accession of a new family to the throne; but we do not find that in the high region of philosophy and art in which he moved, he ever allowed himself to be either withdrawn from or interrupted in his course by any of these great events of the outer world.

His health in his early years was extremely delicate. On this account he received the commencement of his education at home under the superintendence of his father and a domestic tutor. He was then sent to Westminster School, over which the celebrated Busby had just come to preside. The only memorial which we possess of Wren's schoolboy days, is a dedication in Latin verse, addressed by him to his father in his thirteenth year, of an astronomical machine which he had invented, and which seems from his description to have been a sort of apparatus for representing the celestial motions, such as we





*On the original plan by G. C. Smith
in the possession of Mr. C. H. L. Kelly*

In the Superintendence of the Society for the Diffusion of Useful Knowledge.



now call an orrery. His genius is also stated to have displayed itself at this early age in other mechanical contrivances.

In 1646 he was sent to Oxford, and entered as a gentleman commoner at Wadham College. Of his academical life we can say little more than that it confirmed the promise of his early proficiency. He was especially distinguished by his mathematical acquirements, and gained the notice and acquaintance of many of the most learned and influential persons belonging to the university. Several short treatises and mechanical inventions are assigned to this period of his life: but as these have long ceased to interest any but curious inquirers into the history of literature or science, we can only indicate their existence, and refer to other and more comprehensive works. In 1650 Wren graduated as Bachelor of Arts. He was elected Fellow of All Souls on the 2d of November, 1653, and took the degree of Master of Arts on the 12th of December in the same year. Of the subjects which engaged his active and versatile mind at this time, one of the chief was the science of Anatomy; and he is, on apparently good grounds, thought to have first suggested and tried the interesting experiment of injecting liquids of various kinds into the veins of living animals,—a process of surgery, which, applied to the transfusion of healthy blood into a morbid or deficient circulation, has been revived, not without some promise of important results, in our own day. Another subject which attracted much of his attention was the Barometer; but he has no claim whatever, either to the invention of that instrument, or to the detection of the great principle of physics, of which it is an exemplification. The notion which has been taken up of his right to supplant the illustrious Torricelli here, has arisen merely from mistaking the question with regard to the causes of the fluctuations in the height of the barometrical column, while the instrument continues in the same place, for the entirely different question as to the cause why the fluid remains suspended at all; about which, since the celebrated experiments of Pascal, published in 1647, there never has been any controversy. It was the former phenomenon only which was attributed by some to the influence of the moon, and which Wren and many of his contemporaries exercised their ingenuity, as many of their successors have done, in endeavouring to explain.

In carrying on these investigations and experiments, Wren's diligence was stimulated and assisted by his having been admitted a member, about this period, of that celebrated association of philosophical inquirers, out of whose meetings, begun some years before, eventually arose the Royal Society. But, like several others of the more eminent

members, he was soon removed from the comparative retirement of Oxford. On the 7th of August, 1657, being then only in his twenty-fifth year, he was chosen to the Professorship of Astronomy in Gresham College. This chair he held till the 8th of March, 1661, when he resigned it in consequence of having, on the 31st of January preceding, received the appointment of Savilian Professor of Astronomy at Oxford. On the 12th of September, 1661, he took his degree of Doctor of Civil Law at Oxford, and was soon after admitted *ad eundem* by the sister university. During all this time he had continued to cultivate assiduously the various branches of mathematical and physical science, and to extend his reputation both by his lectures and by his communications to the "Philosophical Club," as it was called, which, in 1658, had been transferred to London, and usually met on the Wednesday of every week at Gresham College, in Wren's class-room, and, on the Thursday, in that of his associate Rooke, the Professor of Geometry. The longitude, the calculation of solar eclipses, and the examination and delineation of insects and animalcula by means of the microscope, may be enumerated among the subjects to which he is known to have devoted his attention. On the 15th of July, 1662*, he and his associates were incorporated under the title of the Royal Society; and Wren, who drew out the preamble of the charter, bore a chief part in the effecting of this arrangement.

The future architect of St. Paul's had already been called upon to devote a portion of his time to the professional exercise of that art from which he was destined to derive his greatest and most lasting distinction. Sir John Denham, the poet, had on the Restoration been rewarded for his services by the place of Surveyor of the Royal Works; but although, in his own words, he then gave over poetical lines, and made it his business to draw such others as might be more serviceable to his Majesty, and he hoped more lasting, it soon became apparent that his genius was much better suited to "build the lofty rhyme" than to construct more substantial edifices. In these circumstances Wren, who was known among his other accomplishments to be well acquainted with the principles of architecture, was sent for, and engaged to do the duties of the office in the capacity of Denham's assistant or deputy. This was in the year 1661. It does not appear that for some time he was employed in any work of consequence in his new character; and in 1663 it was proposed to send him out to Africa, to superintend the construction of a new harbour

* In the Life of Boyle this event is stated to have occurred in 1663. A second charter was granted to the Society, in that year, on the 22d of April.

and fortifications at the town of Tangier, which had been recently made over by Portugal to the English Crown, on the marriage of Charles with the Infanta Catherine. This employment he wisely declined, alleging the injury he apprehended to his health from a residence in Africa. Meanwhile, the situation which he held, and his scientific reputation, began to bring him something to do at home. Sheldon, Archbishop of Canterbury, who was Chancellor of the University of Oxford, had resolved to erect at his own expense a new theatre, or hall, for the public meetings of the University; and this building Wren was commissioned to design. The Sheldonian Theatre, celebrated for its unrivalled roof of eighty feet in length by seventy in breadth, supported without either arch or pillar, was Wren's first public work, having been begun this year, although it was not finished till 1668. About the same time he was employed to erect a new chapel for Pembroke College, in the University of Cambridge, to be built at the charge of his uncle, the Bishop of Ely.

But, while he was about to commence these buildings, he was appointed to take a leading part in another work, which ultimately became the principal occupation of the best years of his life, and enabled him to afford to his contemporaries and to posterity by far the most magnificent display of his architectural skill and genius. Ever since the Restoration, the repair of the Metropolitan Cathedral of St. Paul's, which during the time of the Commonwealth had been surrendered to the most deplorable desecration and outrage, had been anxiously contemplated; and on the 18th of April, 1663, letters patent were at length issued by the King, appointing a number of Commissioners, among whom Wren was one, to superintend the undertaking. Under their direction a survey of the state of the building was taken, and some progress was made in the reparation of its most material injuries, when, after the sum of between three and four thousand pounds had been expended, the great fire, which broke out on the night of Sunday, the 2d of September, 1666, on the following day reduced the whole pile to a heap of ruins.

A considerable part of the year before this Wren had spent in Paris, having proceeded thither, it would seem, about Midsummer, 1665, and remained till the following spring. The object of his visit was to improve himself in the profession in which he had embarked, by the inspection and study of the various public buildings which adorned the French capital, where the celebrated Bernini was at this time employed on the Louvre, with a thousand workmen under him, occupied in all the various departments of the art, and forming altogether, in Wren's opinion, probably the best school of architecture to

be then found in Europe. He appears accordingly to have employed his time, with his characteristic activity, in examining everything deserving of attention in the city and its neighbourhood; and lost no opportunity either of making sketches of remarkable edifices himself, or of procuring them from others, so that, as he writes to one of his correspondents, he hoped to bring home with him almost all France on paper. The terrible visitation, which a few months after his return laid half the metropolis of his native country in ashes, opened to him a much wider field whereon to exercise the talent which he had been thus eager to cultivate and strengthen by enlarged knowledge, than he could, while so engaged, have expected ever to possess. He was not slow to seize the opportunity; and while the ashes of the city were yet alive, drew up a plan for its restoration, the leading features of which were a broad street running from Aldgate to Temple Bar, with a large square for the reception of the new cathedral of St. Paul; and a range of handsome quays along the river. The paramount necessity of speed in restoring the dwellings of a houseless multitude, prevented the adoption of this project; and the new streets were in general formed nearly on the line of the old ones. But they were widened and straightened, and the houses were built of brick instead of wood.

Soon after the fire, Wren was appointed Surveyor-General and principal Architect for rebuilding the parish churches; and on the 28th of March, 1669, a few days after the death of Sir John Denham, he was made Surveyor-General of the Royal Works, the office which he had for some time executed as deputy. On the 30th of July he was unanimously chosen Surveyor-General of the repairs of St. Paul's (another office which Denham had also held) by the commissioners appointed to superintend that work, of whom he was himself one. At first it was still thought possible to repair the cathedral; and a part of it was actually fitted up as a temporary choir, and service performed in it. After some time, however, it became evident that the only way in which it could ever be restored was by rebuilding the whole from the foundation. Before the close of the year 1672 Wren had prepared and submitted to the King different plans for the new church; and his Majesty having fixed upon the one which he preferred, a commission for commencing the work was issued on the 12th of November, 1673. On the 20th of the same month, Wren, who had been re-appointed architect for the work, and also one of the commissioners, was knighted at Whitehall, having resigned his professorship at Oxford in the preceding April.

During the space of time which had elapsed since the fire, the

Surveyor-General of Public Works had begun or finished various minor buildings connected with the restoration of the city, and also some in other parts of the kingdom. Among the former may be mentioned the fine column called the Monument ; the church of St. Mary-le-Bow in Cheapside, the spire of which is considered the most beautiful he ever constructed, and a masterpiece of science, both begun in 1671, and finished in 1677 ; and the church of St. Stephens, Walbrook, begun 1672, and finished in 1679, the interior of which is one of the most exquisite specimens of architectural art which the world contains, and has excited, perhaps, more enthusiastic admiration than anything else that Wren has done. During the whole of this time, too, notwithstanding the little leisure which his professional avocations must have left him, he appears to have continued his philosophical pursuits, and his attendance on the Royal Society, of which, from the first, he had been one of the most active and valuable members. His communications, and the experiments which he suggested, embraced some of the profoundest parts of astronomy and the mathematics, as well as various points in anatomy and natural history, and the chemical and mechanical arts.

The design which Wren had prepared for the new Cathedral, and which had been approved by the King, being that of which a model is still preserved in an apartment over the Morning-Prayer Chapel, did not in some respects please the majority of his brother-commissioners, who insisted that, in order to give the building the true cathedral form, the aisles should be added at the sides as they now stand, although the architect is said to have felt so strongly the injury done by that alteration, that he actually shed tears in speaking of it. This difficulty, however, being at length settled, his Majesty, on the 14th May, 1675, issued his warrant for immediately commencing the work ; and accordingly, after a few weeks more had been spent in throwing down the old walls and removing the rubbish, the first stone was laid by Sir Christopher, assisted by his master-mason, Mr. Thomas Strong, on the 21st of June. From this time the building proceeded steadily till its completion in 1710 ; in which year the highest stone of the lantern on the cupola was laid by Mr. Christopher Wren, the son of the architect, as representing his venerable father, now in the seventy-eighth year of his age.

The salary which Sir Christopher Wren received as architect of St. Paul's was only £200 a year. Yet in the last years of his superintendence a moiety of this pittance was withheld from him by the Commissioners, under the authority of a clause which they had got inserted

in an act of parliament entitling them to keep back the money till the work should be finished, by way of thereby ensuring the requisite expedition in the architect. Even after the building had been actually completed, they still continued, on the same pretence, to refuse payment of the arrears due, alleging that certain things yet remained to be done, which, after all, objections and difficulties interposed by themselves alone prevented from being performed. Like his great predecessor, Michael Angelo, Wren was too honest and zealous in the discharge of his duty not to have provoked the enmity of many persons who had their private ends to serve in the discharge of a great public duty. He was at last obliged to petition the Queen on the subject of the treatment to which he was subjected ; but it was not till after a struggle of some years that he succeeded in obtaining redress. The faction by whom he was thus opposed even attempted to blacken his character by a direct charge of peculation, or at least of connivance at that crime, in a pamphlet entitled ‘Frauds and Abuses at St. Paul’s,’ which appeared in 1712, and in reference to which Sir Christopher deemed it proper to appeal to the public in an anonymous reply published the year after, wherein he vindicated himself triumphantly from the aspersions which had been thrown upon him.

The other architectural works which he designed and executed during this period, both in London and elsewhere, are far too numerous to be mentioned in detail. Among them were the parish church of St. Bride, in Fleet Street, which was finished in 1680, and the beautiful spire of which, originally two hundred and thirty-four feet in height, has been deemed to rival that of St. Mary-le-Bow ; the church of St. James, Westminster, finished in 1683, a building in almost all its parts not more remarkable for its beauty than for its scientific construction ; and of which the roof especially, both for its strength and elegance, and for its adaptation to the distinct conveyance of sound, has been reckoned a singularly happy triumph of art ; and the church of St. Andrew, Holborn, a fine specimen of a commodious and an imposing interior : besides many others of inferior note. In 1696 he commenced the building of the present Hospital at Greenwich, of which he lived to complete the greater part. This is undoubtedly one of the most splendid erections of our great architect. Among his less successful works may be enumerated Chelsea Hospital, begun in 1682, and finished in 1690, a plain, but not an inelegant building ; his additions to the Palace of Hampton Court, carried on from 1690 to 1694, which are certainly not in the best taste ; and his repairs at Westminster Abbey, of which he was appointed Surveyor-General in 1698. In his attempt

to restore and complete this venerable edifice, his ignorance of the principles of the Gothic style, and his want of taste for its peculiar beauties, made him fail perhaps more egregiously than on any other occasion. In 1679 he completed the Library of Trinity College, Cambridge, one of the most magnificent of his works; and in 1683, the Chapel of Queen's College, and the Ashmolean Museum, at Oxford. The same year he began the erection of the extensive pile of Winchester Castle, originally intended for a royal palace, but now used as a military barrack. To these works are to be added a long list of halls for the city companies, and other public buildings, as well as a considerable number of private edifices. Among the latter was Marlborough House, Pall-Mall. Indeed scarcely a building of importance was undertaken during this long period which he was not called upon to design or superintend. The activity both of mind and body must have been extraordinary, which enabled him to accomplish what he did, not to speak of the ready and fertile ingenuity, and the inexhaustible sources of invention and science he must have possessed, to meet the incessant demands that were made for new and varying displays of his contriving skill. It appears, too, in addition to all this, that the duties imposed upon him by his place of Surveyor of Public Works, for which he only received a salary of £100 a year, were of an extremely harassing description, and must have consumed a great deal of his time. Claims and disputes as to rights of property, and petitions or complaints in regard to the infringement of the building regulations in every part of the metropolis and its vicinity, seem to have been constantly submitted to his examination and adjudication; and Mr. Elmes has printed many of his reports upon these cases from the original manuscripts, which afford striking evidence both of the promptitude with which he gave his attention to the numerous calls thus made upon him, and of the large expenditure of time and labour they must have cost him.

The long series of years during which Wren was occupied in the accomplishment of his greatest work, and which had conducted him from the middle stage of life to old age, brought to him also of course various other changes. He had been twice married, and had become the father of two sons and a daughter, of whom the eldest, Christopher, was the author of *Parentalia, or Memoirs of the Family of the Wrens*. In 1680, he was elected to the Presidency of the Royal Society, on its being declined by Mr. Boyle; and this honourable office he held for two years; during which, notwithstanding all his other occupations, we find him occupying the chair in person at almost every meeting, and still continuing to take his usual prominent part in the scientific

discussions of the evening. In 1684 there was added to his other appointments that of Comptroller of the Works at Windsor. In May, 1685, he entered parliament as one of the members for Plympton; and he also sat for Windsor both in the convention which met after the revolution, and in the first parliament of William III. He afterwards sat for Weymouth in the parliament which met in February, 1700, and which was dissolved in November of the year following.

The evening of Wren's life was marked by neglect and ingratitude. In the eighty-sixth year of his age he was removed from the office of Surveyor-General, which he had held for forty-nine years, in favour of one Benson, whose incapacity and dishonesty soon led to his disgrace and dismissal. Fortunately Wren's temper was too happy and placid to be affected by the loss of court favour, and he retired to his home at Hampton Court, where he spent the last five years of his life chiefly in the study of the Scriptures, and the revision of his philosophical works. He died February 25, 1723, in the ninety-first year of his age.

More minute accounts of his life are to be found in the *Parentalia*, already mentioned, and in Mr. Elmes's quarto volume. We may also refer the reader to a longer memoir in the *Library of Useful Knowledge*.



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CORNWALL.

*A new original Edition by J. Green
in the beginning of the Institute of France*

and in the Superior Library of the Society for the Diffusion of Useful Knowledge

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PETER CORNEILLE was born at Rouen, on the 6th of June, 1606. His father was in the profession of the law, and held an office of trust under Louis XIII. Young Corneille was educated in the Jesuits' College at Rouen; and, while there, formed an attachment to that society, which he maintained unimpaired in after-life. He was destined for the bar, at which he practised for a short time, but had no turn for business; and with better warrant than the many, who mistake a lazy and vagabond inclination for genius and the muse, he quitted the path of ambition and preferment for a road to fame, shorter, and therefore better suited to an aspiring, but impatient mind. A French writer congratulates his country, that he who would have made an obscure and ill-qualified provincial barrister, became, by change of place and pursuits, the glory and ornament of a great empire in its most splendid day. Corneille "left his calling for an idle trade," without having bespoken the favour of the public by any minor specimens of poetical talent. He seems indeed to have hung loose upon society, till a petty affair of gallantry discovered the mine of his natural genius, though not in his purest and richest vein. The story is told by Fontenelle, and has been related of many others with nearly the same incidents; being the common-place of youthful adventure. One of Corneille's friends had introduced him to his intended wife; and the lady, without any imputation of treachery on the part of the supplanter, took such a fancy to him, as induced her to play the jilt towards his introducer. Corneille moulded the embarrassment into a comedy entitled *Melite*. The drama had hitherto been at a low ebb among the French. Their tragedy was flat and languid: to comedy, properly so called, they had no pretensions. The theatre therefore had hitherto been little attended by persons of condition. Racine describes the French stage when Cor-

neille began to write, as absolutely without order or regularity, taste or knowledge, as to what constituted the real merits of the drama. The writers, he says, were as ignorant as the spectators. Their subjects were extravagant and improbable; neither manners nor characters were delineated. The diction was still more faulty than the action; the wit was confined to the lowest puns. In short, all the rules of art, even those of decency and propriety, were violated. This description gives us the history of the infant drama in all ages and countries; of Thespis in his cart, and of Gammer Gurton's needle.

While the French theatre was in this state of degradation, Melite appeared. Whatever its faults might be, there was something in it like originality of character; some indications of a comic vein, and some ingenious combinations. The public hailed the new era with delight, and the poet was astonished at his own success. The stage seemed all at once to flourish and to have taken its proper station among the elegant arts and rational amusements. On the strength of this acquisition, a new company of actors was formed; and the successful experiment was followed up by a series of pieces of the same kind, between the years 1632 and 1635. Imperfect as they were, we may trace in them some sketches of new character, which the more methodical and practised dramatists of a later period filled out with more skill and higher colouring, but with little claim to invention.

We owe to Corneille one of the most entertaining personages in modern comedy,—the Chambermaid; who has succeeded to the office of the Nurse in the elder drama. This change was partly, perhaps principally, produced by that great revolution in the modern stage which introduced women upon the boards. While female characters were consigned to male representatives, the poet took every opportunity of throwing his heroines into breeches to slur over the awkwardness of the boys; and the subordinate instruments of the plot were duly enveloped in the hoods and flannels of decrepit age, while the hard features of the adult male were easily manufactured into wrinkles. But when once real women were brought forward, they had their own interests to manage as well as those of the author; and the artificial disguise of their persons would ill have accorded with those speculations, of which personal beauty formed a main ingredient. It was their business therefore, while they conducted the love-affairs of their mistresses, to interweave an underplot between themselves and the valets. Less attractive perhaps than their young ladies in outward show, they obtained compensation in the piquancy of wit intrusted to their

delivery, and thus divided the interest among the spectators in no disadvantageous proportion.

Corneille was also the first who brought the dialogue of polished society upon the French stage, which had hitherto been confined to the vulgarities of low comedy or the bombast of inflated tragedy. But it is time to rescue him from the obscurity of his own early compositions.

His first tragedy was *Medea*, copied principally from the faulty model of Seneca, whose prolix declamation, thus early adopted, probably exercised an unfavourable influence on the after fortunes of the national tragedy. His nephew Fontenelle, indeed, says that “he took flight at once, and soared instantly to the sublime.” But this sentence has not been confirmed by more impartial critics. The Continent has condemned the witchcraft; but we are bound to uphold it in defence of our own Shakspeare, who has clothed his hags with more picturesque and awful attributes than the magnificent and imperial sorceries of Corneille, Seneca, or even Euripides himself have exhibited.

The year 1637 was the era of the production of *the Cid*; the play not only of France, but of Europe, for it has been translated into most languages. But a sudden reputation involves its possessor in many vexations. Poets were in those days compelled to be courtiers, if they would prosper. At the Hotel de Rambouillet, an assembly was held, consisting of courtly and fashionable authors, who wasted their time in composing *thèses d'amour* and other fopperies of romantic literature. Over this society, as well as over the politics of Europe, Richelieu chose to be umpire. He was also the founder of the French Academy, and the avowed patron of its members. With this hold upon their good manners, he kept four authors in pay, for the purpose of filling out his own dramatic and poetical skeletons. Corneille consented to be one of the party, and was so ignorant of the ways of courts as to fancy that he might exercise his judgment independently. He was even simple enough to be astonished that the well-meant liberty of making some alterations in the plot of one of these ministerial dramas should give offence: but as he was too proud to surrender his own judgment, or to risk future affronts from the revulsion of the Cardinal's goodwill, he withdrew from the palace, and abandoned himself to uncontrolled intercourse with the Muse. Richelieu therefore became the principal instigator of a cabal, which the envy of the wits sufficiently inclined them to form. Under such auspices, they entered into a conspiracy against the uncourtly offender. The prime minister could not endure that the successful intriguer in political life should be taxed with failure in unravelling the intricacies of a fictitious interest: he there-

fore looked at the real defects in a performance approved by the public with a jaundiced eye, and with but a half-opened one at its unrivalled beauties. As universal patron, he had settled a pension on the poet; but he levelled insidious and clandestine shafts against his fame. The “irritable tribe” willingly ran to arms, with Scuderi at their head, who wrote hostile remarks on the *Cid*, addressed to the Academy in the form of an appeal, in the course of which he quaintly termed himself *the evangelist of truth*. According to the statutes of the Academy, that august body could not take upon itself the decision, without the consent of both parties. Corneille, however indignant professionally, was under too many personal obligations to the Cardinal to spurn the authority of a tribunal erected by him. He therefore gave his assent to the reference, but in terms of considerable haughtiness. The Academy drew up a critique, to which they gave the modest title of “Sentiments of the French Academy on the tragic-comedy of the *Cid*.” In the execution of this delicate commission, the learned members contrived to reconcile the demands of sound taste and criticism with the tact and suppleness of courtiers. They gratified the spleenetic temper of the minister by censures, the justice of which could not be gainsayed: but they praised the beauties of the great scenes with a nobleness of panegyric, which took from the author all right to complain of partiality. This solemn judgment was given after five months of debate and negotiation between the Cardinal and the academicians, who dreaded official frowns if they wholly acquitted, and public disgust if they condemned against evidence. If it be considered that this infant institution owed its birth to Richelieu, and depended on him for its future growth, the verdict is highly honourable to the individuals, and creditable to the literary character, even when disadvantageously circumstanced by being entangled in the trammels of a court.

Our limits will not permit the examination of insulated passages, nor even individual tragedies: but independently of the splendour of the execution, other circumstances attending the career of the *Cid* produced a strong impression on the remainder of Corneille’s dramatic life. The *Cid* was taken from two Spanish plays, and several passages were actual translations; but not in sufficient number to invalidate the author’s claim to a large share of originality. To set that question at rest, in the editions published by himself, he gave the passages taken from the Spanish at the bottom of the page. Yet it was objected by his rivals and libellers, that the author of *Medea* and the *Cid* could only imitate or translate: that he had stolen the first of his tragedies from Seneca, the second from Guillen de Castro: a clever borrower,

without a spark of tragic genius or invention ! Unluckily for this bold assertion, among other European languages, this French play was translated into Spanish ; and the nation, whence the piece was professedly derived, thought it worth while to recover it in the dress given to it by an illustrious foreigner. Against such unfounded censures it will be sufficient to quote the authority of Boileau, who speaks of the Cid as a *merveille naissante*.

Having achieved his first great success on a Spanish subject and after a Spanish model, it is not improbable that, had all gone smoothly, he would have continued to draw his resources from the same fountain. But vexation and resentment, usually at variance with good policy, now conspired with it ; and put him on seeking a new road to fame. He had, as it should seem, intended to transplant a succession of Spanish histories and fables, with all the entanglement of Spanish contrivance in the weaving of plots. But in weighing the objections started against his piece, he found that they applied rather to his Spanish originals than to his own adaptation ; he therefore determined to cut the knot of future controversy, by adopting the severity of the classical model. To this we owe Horace, Pompée, Cinna, and Polyeucte ;—masterpieces which his more polished but more feeble successors in vain aspired to emulate. Thus did this eager war of criticism produce a crisis in the dramatic history of France. Its stage would probably, but for this, have been heroic and chivalrous, not, as it is, Roman, and after the manner of the ancients. It might even have rivalled our own in tragicomedy ;—that monster stigmatized by Voltaire as the offspring of barbarism, although, and perhaps because, he “ pilfered snug ” from it ; and might hope, by undervaluing the article, to escape detection as the purloiner.

At the end of three years, devoted to the study of the ancients, the injured author avenged the injuries levelled against the Cid by the production of Horace. Although the impetuous poet had not yet subdued his genius to the trammels of just arrangement, unity of action, and the other severe rules of the classic drama, such was the originality of conception, the force of character, and grandeur of sentiment displayed in this performance, that new views of excellence were opened to the astonished audience. Voltaire, with all the pedantry of mechanical criticism, objects to Horace, that in it there are three tragedies instead of one. Whatever may be the force of this objection with the French, it will weigh little with a people inured to the irregular sublimity and unfettered splendour of Shakspeare. Cinna redeemed many of the errors of Horace, and improved upon its various merits. The suffrages

of the public were divided between it and *Polyeucte*, as the author's masterpiece. But Dryden considered the *Cid* and *Cinna* as his two best plays; and speaks of *Polyeucte* sarcastically, as "in matters of religion, as solemn as the long stops upon our organs."

Before the performance of *Polyeucte*, Corneille read it at the Hôte de Rambouillet. That tribunal affected sovereign authority in affairs of wit. Even the reputation of the author, now in all its splendour, could no further command the civilities of the critics, than to "damn with faint praise." Some days afterwards, Voiture called on Corneille, and, after much complimentary circumlocution, took the liberty of just hinting, that its success was not likely to answer expectation: above all, that its *Christian spirit* was calculated to give offence. Corneille, much alarmed, was about to withdraw it from rehearsal: the persuasions of an inferior player spirited him up to risk the consequences of avowing himself a Christian in an infidel court. Thus, probably, a hanger-on of the theatre had the honour of preventing a repetition of that malice, by which rival wits attempted to arrest the career of the *Cid*.

The winter of 1641-42 produced *La Mort de Pompée* and *Le Menteur*.

The opening of *La Mort de Pompée* has been frequently commended for grandeur of conception and originality; and the skill cannot be denied, by which the enunciation of the circumstances producing the interest of the piece is rendered consistent with the dignity of the subject and characters. The same praise cannot be conceded to the inflation of the dialogue and the intolerable length of the speeches. But the concluding speech of Cæsar to the second scene of the third act, and the whole of the fourth act, notwithstanding the censure of Dryden, both on this tragedy and the *Cinna*, that "they are not so properly to be called plays, as long discourses of reason and state," may be selected as favourable specimens of the style and power of French dialogue.

A short notice will be sufficient for the comedy of Corneille; and the production of *Le Menteur*, his most celebrated piece, affords the fittest opportunity. As the *Cid* was imitated from Guillen de Castro, Lopé de Vega furnished the ground-work of *Le Menteur*. It is considered to be the first genuine example of the comedy of intrigue and character in France; for *Melite* was at best but a mere attempt. Before this time, there was no unsophisticated nature, no conventional manners, no truth of delineation. Mirth was raised by extravagance, and curiosity by incidents bordering on the impossible. Corneille appealed to nature and to truth: however imperfect the execution, in comparison with that

of his next successor in comedy, he proved that he knew how Thalia as well as Melpomene ought to be drawn. The greatest compliment, perhaps, that can be paid to his genius is, that he pointed out the road both to Racine and Moliere.

The year 1645 gave birth to *Rodogune*, in which, having before touched the springs of wonder and pity, he worked on his audience by the more powerful engine of terror. His subsequent pieces were below his former level, and betrayed, not so much the decay of genius from the growing infirmities of nature, as that fatal mistake in *writing themselves out*, so common to authors in the province of imagination. The cold reception of *Pertharite* disgusted the poet, and he renounced the stage in a splenetic little preface to the printed play, complaining that "he had been an author too long to be a fashionable one." The turmoil of the court and the gaiety of the theatre had not effaced his early sentiments of piety and religion; he therefore betook himself to the translation of Kempis's *Imitation of Jesus Christ*, which he performed very finely. This gave rise to a ridiculous and unfounded story, that the first book was imposed on him as a penance; the second, by the Queen's command; and the third, by the terrors of conscience during a severe illness.

As the mortification of failure faded away with time, his passion for the theatre revived. Notwithstanding some misgivings, he was encouraged by Fouquet Destrin in 1659, after six years' absence. He began again, with more benefit to his popularity than to his true fame, with *Oedipus*;—the noblest and most pathetic subject, most nobly treated, of ancient tragedy. *La Toison d'Or* came next; a spectacle got up for the King's marriage;—a species of piece in which the poet always plays a subordinate part to the scene-painter and the dress-maker. *Sertorius* is to be noticed as having given scope to the fine declamatory powers of Mademoiselle Clairon, the Siddons of the French stage.

Berenice rose to an unenviable fame, principally in consequence of the following circumstances. Henrietta of England, then Duchess of Orleans, whom Fontenelle had the good manners to compliment as "a princess who had a high relish for works of genius, and had been able to call forth some sparks of it *even in a barbarous country*," privately set Corneille and Racine to work on the same subject. Their pieces were represented at the same time; and the struggle between a worn-out veteran and a champion in the vigour of youth, terminated, as might have been expected, in the victory of the latter. This literary contest was known by the title of "the duel." The experiment proves the love of mischief, but says little for the good taste or benevolence

of the royal instigator. *Pulchérie* and *Surena* were his last productions : both better than *Berenice*, with sufficient merit to render the close of his literary life respectable, if not splendid.

The personal history of Corneille furnishes little anecdote ; we have only further to state, that he was chosen a Member of the French Academy in 1647, and was Dean of that society at the time of his death, which took place in 1684, in his seventy-ninth year.

He is said to have been a man of a devout and melancholy cast. He spoke little in company, even on subjects which his pursuits had made his own. The author of ‘*Mélanges d’Histoire et du Literature*,’ a work published under the name of Vigneut Marville, but really written by the Père Bonaventure d’Ayounne, a Cistercian monk of Paris, says, that “the first time he saw him, he took him for a tradesman of Rouen. His conversation was so heavy as to be extremely tiresome if it lasted long.” But whatever might be the outward coarseness or dulness of the man, he was mild of temper in his family, a good husband, parent, and friend. His worth and integrity were unquestionable; nor had his connexion with the court, of which he was not fond, taught him that art of cringing so necessary to fortune and promotion. Hence his reputation was almost the only advantage accruing to him from his productions. His works have been often printed, and consist of more than thirty plays, tragedies and comedies.

Those who wish for a more detailed account of this great writer will find it in his life, by Fontenelle, in Voltaire’s several prefaces, in Racine’s Speech to the French Academy on the admission of his brother Thomas, and in Bayle. Many scattered remarks on him may also be found throughout Dryden’s critical prefaces,



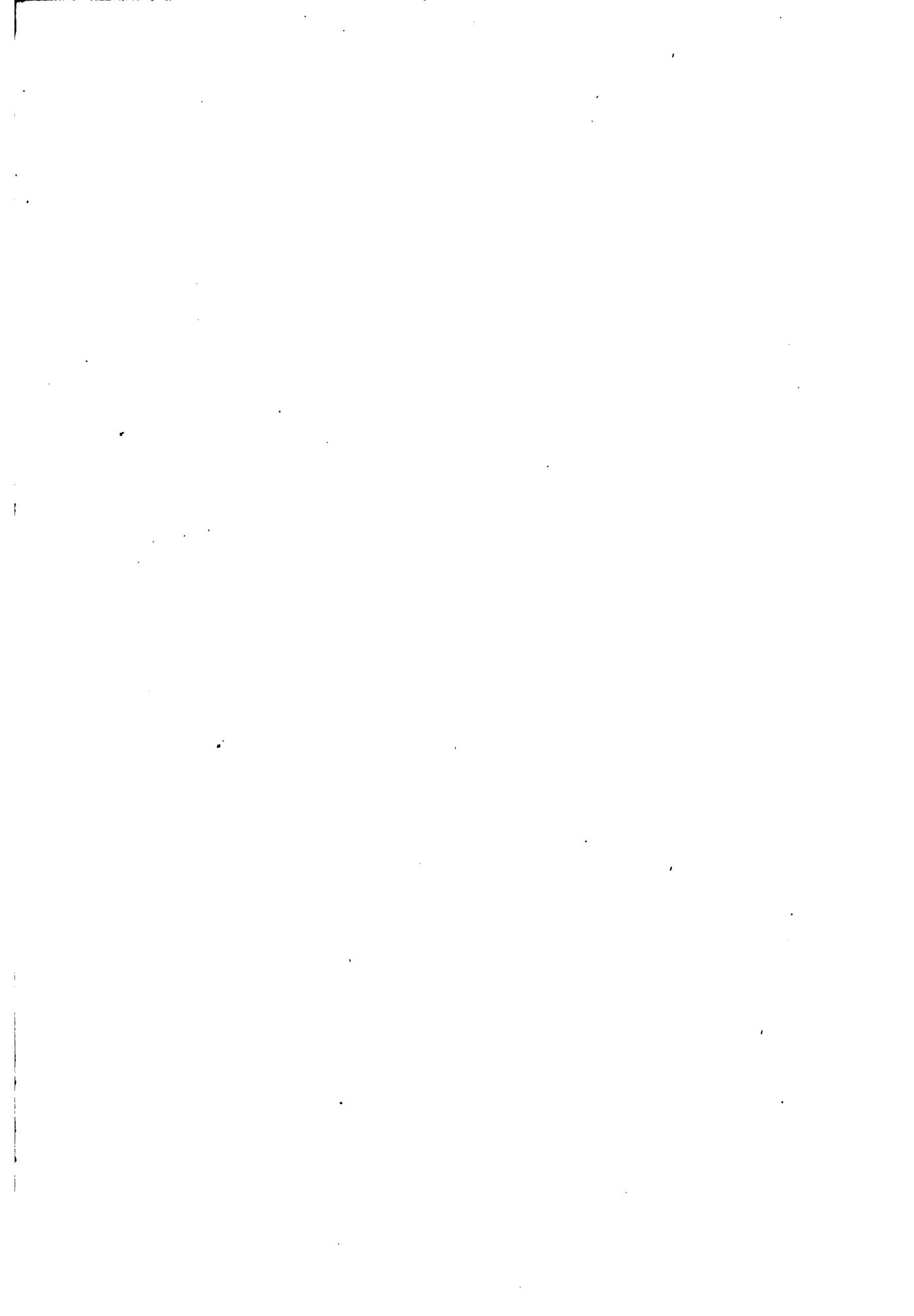
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Mathematical

A general culture model by
the population of the royal family

By G. E. MILLMAN, D.Sc., F.R.S., and J. R. H. STONE, M.A., Ph.D.

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EDMUND HALLEY, one of the greatest astronomers of an age which produced many, was born at a country house named Haggerston, in the parish of St. Leonard, Shoreditch, October 29, 1656. His father, a wealthy citizen and soapboiler, intrusted the care of his son's education to Dr. Gale, master of St. Paul's School. Here young Halley applied himself to the study of mathematics and astronomy with what was then considered great success; for, before he left school, he understood the use of the celestial globe, and could construct a sun-dial; and, as he has himself informed us, had already observed the variation of the needle. In 1673, being in the seventeenth year of his age, he was entered of Queen's College, Oxford, and two years afterwards gave the first proof of his astronomical genius by publishing, in the Philosophical Transactions, 1676, "a direct and geometrical method of finding the Aphelia and Eccentricities of the Planets." His father, who seems to have had none of that antipathy to a son's engaging in literary or scientific pursuits, which is represented as common to men of commerce by the writers of that age, supplied him liberally with astronomical instruments. Thus assisted, he made many observations, particularly of Jupiter and Saturn, by means of which he discovered that the motion of Saturn was slower, and that of Jupiter quicker than could be accounted for by the existing tables; and made some progress in correcting those tables accordingly. But he soon found that nothing could be done without a good catalogue of the stars. This, it appears, he had some intention of forming; but finding that Hevelius and Flamsteed were already employed on the same work, he proposed to himself to proceed to the southern hemisphere, and to complete the design by observing those stars which never rise above the horizons of Dantzic and Greenwich. Having obtained his father's consent, and an allowance of £300 a-year; and

having fixed upon St. Helena as the most convenient spot, he applied to Sir Joseph Williamson and Sir Jonas Moor, the Secretary of State and the Surveyor of the Ordnance. These gentlemen represented his intention in a favourable light to Charles II., and also to the East-India Company, who promised him every assistance in their power. Thus protected, he set out for St. Helena in 1676 ; his principal instruments being a sextant of five feet and a half radius, and a telescope of twenty-four feet in length. He found the climate not so favourable as he had been led to believe, and moreover describes himself as disgusted with the treatment he received from the Governor. Under these disadvantages, he nevertheless formed a catalogue of 350 stars, which he afterwards published under the name of ‘ Catalogus Stellarum Australium.’ He called a new constellation which he had observed, by the title of *Robur Carolinum*, in honour of the well-known oak of Charles II. While at St. Helena he also observed a transit of Mercury, and suggested the use which might be made of similar phenomena in the determination of the sun’s distance from the earth. He first observed the necessity of shortening the pendulum as it approached the equator ; or, at least, when Hook afterwards mentioned the circumstance to Newton, it was the first time the latter had heard of the fact.

Soon after his return to England, in November, 1678, Halley obtained the degree of M.A. from the University of Oxford, by royal mandate, and was elected Fellow of the Royal Society. This body had been requested by Hevelius to select some person who might add the southern stars to his catalogue. A dispute was also pending between him and Hook, as to the use of telescopes in observing the stars, to which the former objected. To aid Hevelius, as well as to decide upon the character of his observations, Halley went to Dantzic, and it is related, as a proof of the energy of his character, that in one month from the time of his landing in England he published his catalogue, procured a mandate, took the degree, was elected F.R.S., arranged to go to Dantzic, and wrote to Hevelius. He arrived on the 26th of May, 1679, and the same night entered upon a series of observations with Hevelius, which he continued till July, when he returned to England, fully satisfied of his coadjutor’s accuracy.

In 1680 he again visited the continent. Between Paris and Calais he had a sight of the celebrated comet of that year, well known as the one by observations of which the orbit of these bodies was discovered to be nearly a parabola. He returned from his travels in the year 1681, and shortly after married the daughter of a Mr. Tooke,

then Auditor of the Exchequer, which union lasted fifty-five years. He settled at Islington, where, for more than ten years, he occupied himself with his usual pursuits, of the results of which we shall presently speak more particularly.

In 1691 the Savilian Professorship of Astronomy became vacant, and, as Whiston relates, on the authority of Dr. Bentley, Bishop Stillingfleet was requested to recommend Mr. Halley. But the astronomer's avowed disbelief of Christianity interfered with his election in this instance, and the Professorship was given to Dr. Gregory. It is related by Sir David Brewster that Halley, when inclined to enter upon religious subjects with Newton, always received a check in words like the following, " You have not studied the subject—I have."

After the above-mentioned failure, our astronomer received from King William the commission of Captain in the Navy, with command of a small vessel. The singularity of the reward need not surprise us, when the same monarch offered a company of dragoons to Swift: indeed the pursuits of Captain Halley were nearly akin to those of navigation, and he himself might be almost as well qualified for sailing, though perhaps not for fighting a ship, as most of his brother officers. In his new character Halley made two voyages, the first to the Mediterranean, the Brazils, and the West Indies, for the purpose of ascertaining the variation of the magnet, a subject in which he was much interested, and of which he afterwards published a chart; the second to ascertain the latitudes and longitudes of the principal points in the British Channel, and the course of the tides. In 1703 he was elected Savilian Professor of Geometry, on the death of the celebrated Wallis. He received, about the same time, the degree of Doctor of Laws, which is conferred without requiring subscription to the Articles of the Church. In his connexion with the University he superintended several parts of the edition of the Greek Geometers, which was printed at the University press.

Halley succeeded Sir Hans Sloane, in 1713, as Secretary to the Royal Society; and, in 1719, on the death of Flamsteed, he was appointed Astronomer Royal at Greenwich. In this employment he continued till his death, under the patronage of Queen Caroline, wife of George II., who procured for him the half-pay of the rank he formerly held in the navy. In 1737 he was seized with a paralytic disorder; but nevertheless continued his labours till within a short time of his death, which took place in January, 1742, at the age of eighty-five. He was interred at Lee, near Blackheath, where a monument was erected to him and his wife by their two daughters.

In person Dr. Halley was rather tall, thin, and fair, and remarkable as well for energy as vivacity of character. He cultivated the friendship and acquired the esteem of his most distinguished contemporaries, and particularly of Newton, spite of their very different opinions. Indeed it may be said that to him we owe, in some degree, the publication of the 'Principia,' for Halley being engaged upon the consideration of Kepler's law, as it had been discovered by observation, viz., that the squares of the periodic times of planets are as the cubes of their distances, and suspecting that this might be accounted for on the supposition of a centripetal force, varying inversely as the square of the distance, applied himself to prove the connexion geometrically, in which he was unable to succeed. In this difficulty he applied to Hook and Wren, neither of whom could help him, and was recommended to consult Newton, then Lucasian Professor at Cambridge. Following this advice, he found in Newton all he wanted; and did not rest until he had persuaded his new acquaintance to give the results of his discoveries to the world. In about two years after this, the first edition of the 'Principia' was published, and the proofs were corrected by Halley, who supplied the well-known Latin verses which stand at the beginning of the work.

In conversation, Halley appears to have been of a jocose and somewhat satirical disposition. The following anecdote of him, which is told by Whiston, displays the usual modesty of the latter, when speaking of himself: "On my refusal from him of a glass of wine on a Wednesday or Friday, he said he was afraid I had a pope in my belly, which I denied, and added somewhat bluntly, that had it not been for the rise now and then of a Luther or a Whiston, he would himself have gone down on his knees to St. Winifred or St. Bridget, which he knew not how to contradict." It is related that when Queen Caroline offered to obtain an increase of Halley's salary as Astronomer Royal, he replied, "Pray, your Majesty, do no such thing, for should the salary be increased, it might become an object of emolument to place there some unqualified needy dependant, to the ruin of the institution." And yet the sum which he would not suffer to be increased was only £100 a-year.

To give even a catalogue of the various labours of Halley, would require more space than we can here devote to the subject. For a more detailed account both of his life and discoveries, we must refer the reader to the *Biographia Britannica*, to Delambre, *Histoire de l'Astronomie au dix-huitième Siècle*, livre II., and the *Philosophical Transactions* of the time in which he lived; or better perhaps to the

Miscellanea Curiosa, London, 1726, a selection of papers from the Transactions, containing the most remarkable of those written by Halley. We shall, nevertheless, proceed briefly to notice a few of the discoveries on which the fame of our astronomer is built.

The most remarkable of them, to a common reader, is the conjecture of the return of a comet. Some earlier astronomers, as Kepler, had imagined the motion of these bodies to be rectilinear. Newton, in explaining the principle of universal gravitation, showed how a comet might describe a parabola, and also how to calculate its motion, and compare it with observation. Hevelius had already indicated the curvature of a comet's path, and Dörfel, a Saxon clergyman, had calculated the path of the comet of 1680 upon this supposition. Halley, in computing the parabolic elements of all the comets which had been well observed up to his time, suspected, from the general likeness of the three, that the comets of 1531, 1607, and 1682, were the same. He was the more confirmed in this, by knowing that comets had been seen, though no good observations were recorded, in the years 1305, 1380, and 1456, giving, with the former dates, a chain of differences of 75 and 76 years alternately. Halley supposed, therefore, that the orbit of this comet was, not a parabola, but a very elongated ellipse, and that it would return about the year 1758. The truth of his conjecture was fully confirmed in January, 1759, by Messier. The first person, however, who saw Halley's comet, as it is now called, was George Palitzch, a farmer in the neighbourhood of Dresden, who had studied astronomy by himself, and fitted up a small observatory.

But a much more useful exertion of Halley's genius and power of calculation is to be found in his researches on the lunar theory. It is to him that we are indebted for first starting the idea of finding the longitude at sea by means of the moon's place, which is now universally adopted. The principle of this problem is as follows. An observer at sea can readily find the time of day by means of the sun or a star, and can thereby correct a watch. If he could at the same moment in which he finds his own time, also discover that at Greenwich, the difference between the two, turned into degrees, minutes, and seconds, would be his longitude east or west of Greenwich. If, therefore, he carries with him a Nautical Almanac, in which the times of various astronomical phenomena are registered, as they will take place at Greenwich, or rather as they will be seen by an observer placed at the centre of the earth with a Greenwich clock, he can observe any one of these phenomena, and reduce it also to the

centre. He will then know the corresponding moments of time, for his own position and that of Greenwich. The moon traverses the whole of its orbit in little more than 27 days, and therefore moves rapidly with respect to the fixed stars, its motion being nearly a whole sign of the zodiac in 48 hours. If we observe the distance between the moon and a star, and find it to be ten degrees, the longitude of the place in which the observation is made can be known as aforesaid, if the almanac will tell what time it was at Greenwich when the moon was at that same distance from the star. In the time of Halley, though it was known that the moon moved nearly in an ellipse, yet the elements of that ellipse, and the various irregularities to which it is subject, were very imperfectly ascertained. It had, however, been known even from the time of the Chaldeans, that some of these irregularities have a *period*, as it is called, of little more than eighteen years, that is, begin again in the same order after every eighteen years; the periods and quantities of several other errors had also been discovered with something like accuracy. To make good lunar tables, that is, tables from which the place of the moon might be correctly calculated beforehand, became the object of Halley's ambition. He therefore observed the moon diligently during the whole of one of the periods of eighteen years, that is, from the end of 1721 to that of 1739, and produced tables which were published in 1749, after his death, and were of great service to astronomers. He also made another observation on the motion of the moon, which has since given rise to one of the finest discoveries of Laplace. In calculating from our tables the time of an ancient eclipse, observed at Babylon, b. c. 720, he found that, had the tables been correct, it would have happened three hours sooner than, according to Ptolemy, it did happen. This might have arisen from an error in the Babylonian observation; but on looking at other eclipses, he found that the ancient ones always happened later than the time indicated by his table, and that the difference became less and less as he approached his own time. From hence he concluded that the moon's average daily motion is subject to a very small acceleration, so that a lunar month at present is in a very slight degree shorter than a month in the time of the Chaldeans. This was afterwards shown by Laplace to arise from a very slow diminution in the eccentricity of the earth's orbit, caused by the attraction of the planets. For a further account of Halley's astronomical labours, we may refer to the History of Astronomy in the Library of Useful Knowledge, page 79.

We must also ascribe to Halley the first correct application of the

barometer to the measurement of the heights of mountains. Mariotte, who first enunciated the remarkable law that the elastic forces of gases are in the inverse proportion of the spaces which they occupy, had previously given a formula for the determination of these same heights, entirely wrong in principle, and inapplicable in practice. Halley, whose profound mathematical knowledge made him fully equal to the task, investigated and discovered the common formula, which, with some corrections for the temperature of the mercury in the barometer and the air without it, is in use at this day. We have already mentioned that Halley sailed to various parts of the earth with a view to determine the variation of the magnet. The result of his labours was communicated to the Royal Society in a map of the lines of equal variation, and also of the course of the trade-winds. He attempted to explain the phenomena of the compass by supposing that the earth is one great magnet, having four poles, two near each pole of the equator; and further accounts for the variation which the compass undergoes from year to year in the same place, by imagining a magnetic sphere, interior to the surface of the earth, which nucleus or inner globe turns on an axis with a velocity of rotation very little differing from that of the earth itself. This hypothesis has shared the fate of many others purely mathematical; that is, invented to show how the observed phenomena might be produced, without any ground of observation for believing that they really are so produced. If we put together the astronomical and geographical discoveries of Halley, and remember that the former were principally confined to those points which bear upon the subjects of the latter, we shall be able to find a title for their author less liable to cavil than that of the Prince of Astronomers, which has sometimes been bestowed upon him; we may safely say that no man, either before or since, has done more to improve the theoretical part of navigation, by the diligent observation alike of heavenly and earthly phenomena.

We pass over many minor subjects, such as his improvement of the diving-bell, or his measurement of the quantity of fluid abstracted by evaporation from the sea, to come to an application of science in which he led the way,—the investigation of the law of mortality. From observations communicated to the Royal Society of the births and deaths in the city of Breslau, he constructed the first table of mortality, which was in a great measure the foundation of the celebrated hypothesis of De Moivre, that the decrements of human life are nearly equal at all ages; that is, that out of eighty-six persons born, one dies every year, until all are gone. Halley's table, as might be expected, was not

very applicable to human life in England, either then or now, but the effect of example is conspicuous in this instance. Before the death of Halley the tables of Kersseboom were published, and four years afterwards, those of De Parcieux.

We will not enlarge on the purely mathematical investigations of Halley, which would possess but little interest for the general reader. We may mention, however, his method for the solution of equations, his ‘Analogy of the Logarithmic Tangents to the Meridian Line, or sum of the secants,’ his algebraic investigation of the place of the focus of a lens, and his improvement of the method of finding logarithms. From the latter we quote a sentence, which, to the reader, for whose benefit we have omitted entering upon any discussion of these subjects, will appear amusing enough, if indeed he does not shrink to see how much he has degenerated from his ancestors. After describing a process which contains calculation enough for most people; and which further directs to multiply sixty figures by sixty figures, he adds, “If the curiosity of any gentleman that has leisure, would prompt him to undertake to do the logarithms of all prime numbers under 100,000 to 25 or 30 figures, I dare assure him that the facility of this method will invite him thereto; nor can anything more easy be desired. And to encourage him, I here give the logarithms of the first prime numbers under 20 to 60 places.” One look at these encouraging rows of figures would be sufficient for any but a calculating boy.

No one who is conversant with the mathematics and their applications can read the life of the mathematicians of the seventeenth century without a strong feeling of respect for the manner in which they overcame obstacles, and of gratitude for the labour which they have saved their successors. The brilliancy of later names has, in some degree, eclipsed their fame with the multitude; but no one acquainted with the history of science can forget, how with poor instruments and imperfect processes, they achieved successes, but for which Laplace might have made the first rude attempts towards finding the longitude, and Lagrange might have discovered the law which connects the coefficients of the binomial theorem. But even of these men the same thing may one day be said; and future analysts may wonder how Laplace, with his paltry means of investigation, could account for the phenomenon of the acceleration of the moon’s motion; and future astronomers may, should such a sentence as the present ever meet their eyes, be surprised that the observers of the nineteenth century should hold their heads so high above those of the seventeenth.



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Under the Superintendence of the Society for the Diffusion of Useful Knowledge.

THE Duc de Sully is celebrated as the companion, minister, and historian of Henry IV., the most popular of French monarchs. Eminent among his contemporaries both as a soldier and as a financier, it is his especial glory that he laboured to promote the welfare of the industrious classes, when other statesmen regarded them but as the fount from which royal extravagance was to be supplied.

Maximilian, son of François de Bethune, Baron de Rosny, and of Charlotte Dauvet, daughter of a President of the Chamber of Accounts at Paris, was born at Rosny in the year 1559. His family was ancient, illustrious, and once wealthy, but his paternal grandfather had almost ruined it by his extravagance, his maternal grandfather disinherited him because he embraced the reformed religion; and with a slight annual allowance young Rosny had to seek his own fortune in the extravagant profession of arms. By a sage economy and order he, however, supported himself, and escaped the dependence and dishonour consequent on extravagance in a poor man. When thirteen years of age he was presented by his father to the young Prince of Navarre, who was only seven years older than himself, and who at once conceived that affection for him which was destined to cease only with his own life.

On the memorable day of St. Bartholomew, Rosny was in Paris, engaged in the prosecution of his studies. A known member of the Protestant Church, his life was in jeopardy: his servant and his tutor fell victims to the rage of the Papists, and he himself, obliged to quit his chambers for a safer hiding-place, and exposed to imminent dangers in traversing the streets, owed his deliverance more than once to a union of courage and coolness not very common in a youth of thirteen. After this event he, as well as his patron and friend Henry of Navarre, conformed for a time to the observances of the Roman Catholic religion; but in 1576, when Henry escaped from the thraldom in which he had been held, abjured Catholicism and placed himself at the head

of a Protestant army, Rosny was the companion of his flight, and first began to carry arms in his service. His noble birth, and the favour of his master, would at once have secured him military rank, but Rosny preferred to serve as a simple volunteer, in order, as he said, to learn the art of war by its elements.

At the surprise of Réde, at the siege of Villefranche, at the taking of Eause and Cahors, at the battle of Marmande, and in all the dangerous affairs in which Henry engaged, Rosny was always at his side. His good services, and the affection borne him by his master, did not, however, prevent a quarrel, which, it must be said, was provoked by his own imprudence and aggravated by his own pride. In spite of the commands of the Prince of Navarre, who had wisely prohibited the practice of referring private quarrels to the arbitrement of the sword, Rosny acted as second in a duel, in which one of the principals was desperately wounded. The Prince's anger at the breach of discipline was exasperated by a strong personal regard for the wounded man. He sent for Sully, rebuked him in harsh terms, and said that he deserved to lose his head for what he had done. The pride of the young soldier was touched ; he replied that he was neither vassal nor subject of Navarre, and would henceforth seek the service of a more grateful master. The Prince rejoined in severe terms and turned his back on him ; and Rosny was quitting the court, when the Queen, who knew his value, interfered, and reconciled him with her son.

Not long after he quitted Henry's service, alleging that he had pledged his word to accompany the Duc d'Alençon, afterwards Duc d'Anjou, brother of Henry III., in his contest for the sovereignty of Flanders ; where, in case of success, he was to be put in possession of the estates which had belonged to his maternal grandfather. In this campaign he gained neither honour nor profit, and soon returned to his original master. Henry received him with open arms, and, as if to prove that absence had not affected his confidence and esteem, sent him a few days after on an important mission to Paris.

In the troubled times which followed, Rosny was unshaken in devotion to the cause which he had espoused. He accompanied Henry, when that prince, with only nineteen followers, threw himself, as a last resource, into La Rochelle. He undertook an embassy from that city to Henry III., then almost as much persecuted by the League as the King of Navarre himself. In his Memoirs he has left a striking description of the degraded condition of that sovereign, who had entirely abandoned himself to favourites and menials of the court. " His Majesty was in his cabinet ; he had his sword by his side, a hood thrown over his

shoulders, a little bonnet on his head, and a basket full of little dogs hung round his neck by a broad riband." He listened to Rosny with vacant stupidity, neither moving his feet, his hands, nor his head. When he spoke, he complained of the audacity and insults of the League—said that nothing would go well in France until the King of Navarre went to mass—but agreed, finally, that Rosny might treat with the envoys of the Protestant Cantons of Switzerland, in his name as well as the King of Navarre's, for the raising of twenty thousand Swiss troops, to be employed between the two sovereigns.

Henry, through his imprudence, lost all the advantages which his faithful servant's treaty with the Swiss might have secured to him; but neither disgusted nor dispirited by this folly, Rosny persevered in his attachment to a cause which seemed altogether desperate to most others. He was at the siege of Fontenay, and at the brilliant victory of Coutras, for which the King of Navarre was materially indebted to the artillery under Rosny's command. His next great undertaking was to effect an entire reconciliation between his master and the King of France. Having succeeded in this, the eyes of all France thenceforward rested upon him as the only man who could re-establish the distracted kingdom. Such was the enthusiasm of many of the French at the time, that they called him "*Le Dieu Rosny*."

The desired reconciliation had not long been made when Henry III. was assassinated by a fanatic monk, and the King of Navarre laid claim to the vacant throne. But much remained to be done ere he could tranquilly seat himself upon it. His religion was an insurmountable obstacle to the mass of the nation, and the League was all-powerful in many parts of France and held possession of Paris.

Rosny fought with his accustomed valour at the battles of Arques and Ivry. At the latter he well nigh lost his life: he received five wounds, had two horses killed under him, and fell at last among a heap of slain. The manner in which he retired from this field, with four prisoners of the highest distinction and the standard of the enemy's commander-in-chief, is one of the most romantic incidents to be found in authentic history.

After the victory of Ivry, Rosny did not receive the rewards he merited, and he remained for some time at his estate under pretence of ill health, but secretly disinclined to return to the service of one who had shown little real gratitude for his long and faithful adherence. No sooner, however, did he learn that Henry was about to undertake the siege of Paris, than he left his retreat and hastened again to his master's side. His wounds were still uncured: he appeared before

the King leaning on crutches and with an arm in a sling. Touched by his devotedness and his melancholy state, Henry loaded him with caresses, and insisted that he should not expose himself for the present but remain near his person to assist him with his counsels.

When Henry first meditated his recantation of the Protestant faith, he consulted Rosny on this all-important subject. The honest soldier after reviewing the state of the parties opposed to the King, and holding out the hope that they would disagree among themselves and fall to pieces, said, "With regard to your change of religion, it cannot be otherwise than advantageous to you, seeing that your enemies have no other pretext for their hostility, but, sire, it is between you and your conscience to decide on this important article*." Shortly after this conversation the death of the Duke of Parma relieved Henry from one of his most formidable enemies; but the implacable Leaguers, now becoming meanly desperate, laid plots against his life, and, it is said, even sent assassins to Mantes, where the King was residing. Henry thought to provide for his personal safety by continually surrounding himself by a corps of faithful English soldiers who were in his service; but Rosny, knowing the craft and audacity of fanaticism, and warned of the danger which menaced the competitor for the crown by the untimely fate of its last wearer, was kept in a state of continual alarm. At last, sinking his attachment to the reformed religion in his attachment to his King and his friend, he supplicated, on his knees, that he would conform to the doctrines of the Roman Catholic Church. And this the King did almost immediately after. Rosny continued a Protestant. Many of the cities of France now submitted to Henry, but Rouen, one of the most important of the number, was only gained over by the skilful negotiations of Rosny, who shortly after treated, and with equal success, with the Duke de Bouillon, the Duke de Guise, and other formidable enemies of the King. In return for these valuable services, he was admitted into the Councils of War and Finance, where his honesty and the favour of his master soon roused the corrupt and jealous members of those departments of government against him. So great, indeed, were his annoyances that in the absence of Henry he withdrew again to his estates, and was only induced to return to his post by a personal visit from his sovereign.

The King, who was now strong enough to attack the Spaniards in their dominions in the Low Countries, laid siege to Arras: but through the bad conduct of those who administered the finances of the state, he

* Mémoires de Sully.

not only found himself unprovided with all that was necessary to prosecute his undertaking with success, but was left in a state of entire and even personal destitution. In these difficulties he called Rosny to his assistance, and placed him at the head of the finances. Under the new minister's able and honest management, affairs soon changed their aspect : the treasury was replenished, while at the same time the people found their burdens lightened by economy. Rosny had prepared himself for this office, in the discharge of which he became a true benefactor of France, by a profound study of accounts and of the revenues and resources of the country ; and when the post was given to him, for a considerable time he laboured night and day to detect the impolicy and the peculation of those who preceded him, and to re-establish the finances of the country.

In 1601 Rosny visited England, under pretence of travelling for his amusement, but in reality to ascertain the political views, and to secure the friendship of Elizabeth. On the Queen's death, a formal embassy to James I. was contemplated, but a dangerous illness which the King suffered at Fontainebleau delayed this measure. Henry, who thought he was dying, sent for the long-tried Rosny to his bed-side, and in his presence he desired the Queen to retain his faithful minister, as the welfare of herself, her family, and of the nation were dear to her. The King, however, recovered, and in the month of June, 1603, Rosny, with a numerous suite, departed on his mission. After a residence of several weeks in England, he succeeded in concluding an advantageous treaty with James I.

The following year he composed a treatise on religious tolerance, which he at one time hoped might reconcile the animosities of the Catholics and Protestants. If he failed in this, he left an example, rare at that time, of an enlightened and liberal spirit. Shortly after he wrote a memorial indicating the means by which the commerce and finances of France might be still further improved. At that time the political sciences could scarcely be said to exist ; and it is not to be supposed that the minister's views were at all times just and enlarged. They show, at all events, that he looked to the industry of the people as the source of national wealth ; and to their welfare as one, at least, of the objects of government. "Tillage and pasturage," it was a favourite saying of his, "are the two paps by which France is nourished—the real treasures of Peru." To manufactures he was less favourable, and his obstinacy on this head retarded many of Henry's schemes for the encouragement of national industry. His real glory as a minister is to be sought in the exactness which he introduced into

the horrors of civil war. To find occupation for his active mind he dictated his Memoirs to four secretaries, whom, for many years, he retained in his service, and who, in the ‘Economies Royales,’ better known under the title of ‘Mémoires de Sully,’ preserved not only the most interesting details of the life of their noble master and of Henry IV., but the fullest account of the history and policy, manners and customs, of the age in which Sully lived. Neither the occupations of war nor of politics, in which he had been absorbed for thirty-four years, had eradicated his original taste for polite literature; and in his retirement he composed many pieces not only in prose but in verse. One of his poetical compositions, which is a parallel between Henry IV. and Julius Cæsar, was translated into Latin and much admired throughout Europe.

After having lived thirty years in this retirement, the great Sully expired at his Château of Villebonne, in the eighty-second year of his age, on the 22d December, 1641—the same year in which Lord Strafford, the minister of Charles I., was beheaded in London, and in which the grave closed over the widow of Henry IV., Mary de’ Medici, who died at Cologne in obscurity and great poverty.

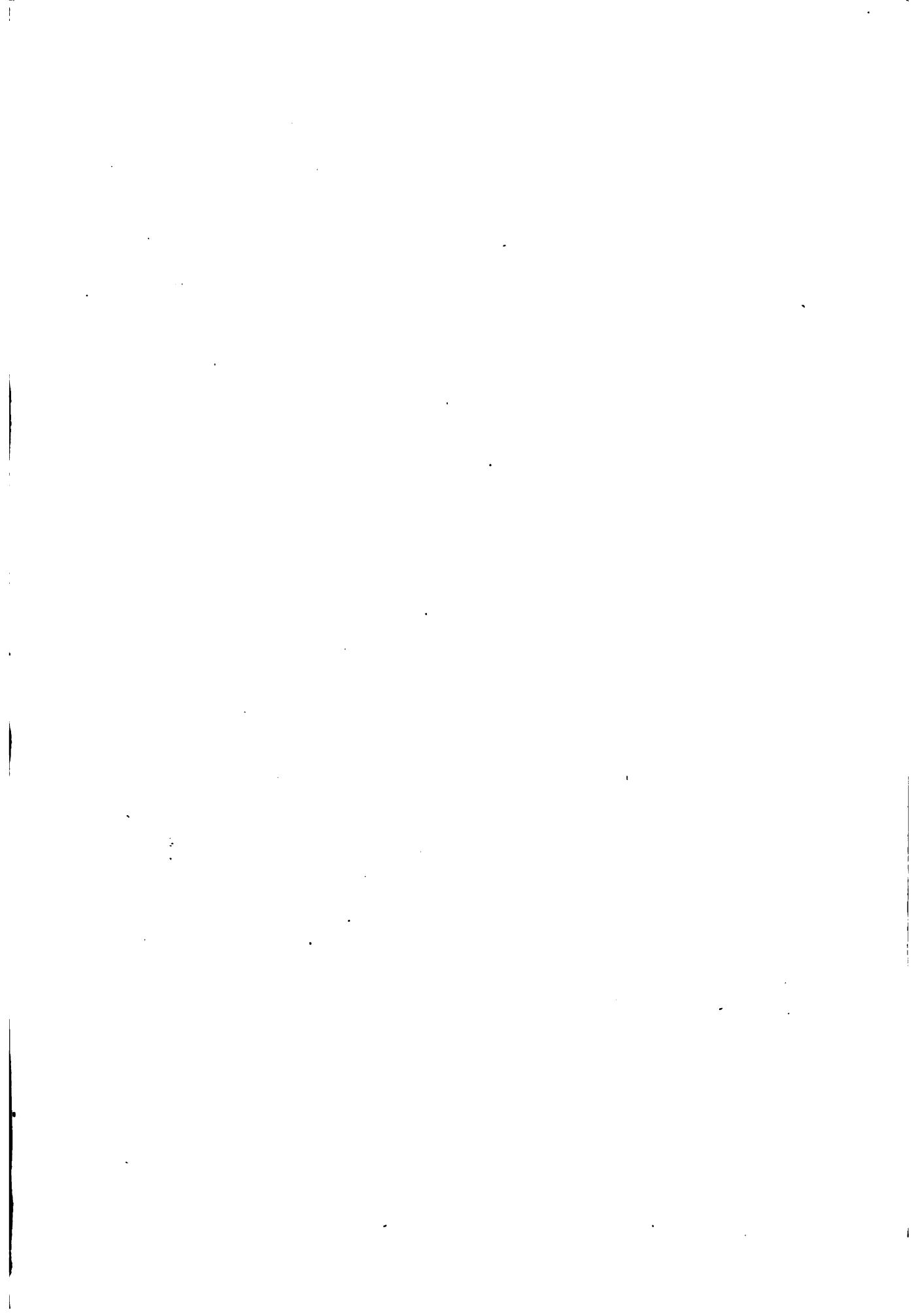
It is to be regretted that no author has yet produced a life of Sully worthy of the subject. The ‘Economies Royales’ is the great store-house of information, but its prolixity and singularity of style render it little attractive to the general reader. The following works, however, may be consulted:—‘Les Vies des Hommes Illustres de la France,’ by M. D’Auvigny, and the memoir in the ‘Biographie Universelle.’



IN PROGRESS

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*Editorial Note — *Continued* — *Continued* — *Continued**





TRUTH and compliment are happily united in Poussin's observation to a noble amateur, " You wanted but the stimulus of necessity to have become a great painter." The artist had himself felt this stimulus, and he knew its value in producing resolution and habits of industry. His family was noble, but indigent: John, his father, a native of Soissons, and a soldier of fortune, served during the reigns of Charles IX., Henry III., and Henry IV., with more reputation than profit. At last, finding that in the trade of arms his valour was likely to be its own reward, he married the widow of a solicitor, resigned his military employments, and fixed his abode at Andelys in Normandy, where, in June 1594, his son Nicholas, the subject of the present memoir, was born.

The district in which Andelys is situated is remarkable for its picturesque beauty, and from the scenery which surrounded him the genius of Poussin drew its first inspiration. His sketches of landscape attracted the notice and commendation of Quintin Varin, an artist residing in the neighbourhood. Animated by praise, young Poussin earnestly solicited his father that he might become Varin's pupil: a request to which the prudent parent, after long hesitation, reluctantly acceded. He knew that in such a pursuit as that of the fine arts, much of the aspirant's life must be expended before a just estimate of his professional talents can be formed, and that even where talent exists, the success of the possessor is not always commensurate to its claims. The youth, however, was fortunate in meeting, in the first instance, with a preceptor whose instructions, founded on just principles, left him nothing to unlearn. He remained with Varin until his eighteenth year, when he went to Paris, and studied under Ferdi-

nand Elle, and L'Allemand, two artists then in fashion, from whom he learned nothing. In the mean time he had become acquainted with several persons who appreciated his dawning talents, and felt an interest in his fortunes. Among the rest, a young nobleman of Poitou manifested an almost fraternal attachment towards him, relieved his pecuniary wants, and among other services introduced him to Courtois, the King's mathematician, who possessed a fine collection of prints by Marc Antonio, and a great number of drawings and sketches by Raffaelle, Giulio Romano, and other great masters of the Roman school. These treasures Poussin studied and copied with sedulous zeal and attention, and he was frequently heard to advert to this circumstance as one of the most fortunate of his life, inasmuch as the contemplation of these fine examples had fixed his taste, and determined the bent of his powers towards the higher branches of art, at a time when his mind was fluctuating between the attractions of different schools.

The young Poitevin, being summoned to return home, invited Poussin to become his companion, and to undertake a series of pictures, calculated, by its extent as well as its excellence, to do honour to his paternal mansion. But his mother regarded the fine arts and those who patronised them with equal and unqualified contempt: and suffering in her house the exercise of none but what she considered useful talents, she assigned to Poussin the office of house-steward, and his visions of fame were at once dispelled by the humble occupation of overlooking the servants, and keeping accounts. It may easily be supposed that the young artist did not deport himself very meekly under the new appointments which had thus unexpectedly been thrust upon him. Without asking the sympathy or assistance even of his friend, who, it would appear, had acquiesced too readily in his mother's arrangements, he quitted the house and made his way to Paris on foot; having no other means of support on the road than the extemporaneous productions of his pencil. In consequence of the hardships which he experienced during this journey, he was attacked by a fever on reaching Paris, which obliged him to return to Andelys. After the lapse of a year, having recruited his health, he made arrangements to execute a long-cherished purpose of a journey to Rome. But with an improvidence not uncommon in artists, and sometimes falsely said to be characteristic of genius, he calculated his resources so inaccurately that in two successive attempts he was obliged to return, leaving his purpose unaccomplished. In the first instance he reached Florence, but in the second, he got no

farther than Lyons. The disappointment, however, was attended with good results, for on his return to Paris, a circumstance occurred which at once raised him into high reputation.

The Jesuits had ordered a set of pictures for a high festival, which were to display the miracles worked by their patron saints, Ignatius Loyola, and Francis Xavier. Of these, six were executed by Poussin, in a very short space of time; the pictures were little more than sketches, but they exhibited such powers of composition and expression, that he was at once acknowledged to have distanced all competitors. His acquaintance was now sought by amateurs and literati; but the chief advantage which accrued to him was the friendship of the Chevalier Marini, a distinguished Italian, who had settled in Paris, and engaged with interest in the cultivation of elegant literature and the arts. His mind was stored with classical erudition, and he delighted to exercise his poetic talent on the then fashionable fables of heathen mythology. Such pursuits were congenial to Poussin's turn of mind; and by the advice, and with the assistance of Marini, he entered deeply into the study of the Latin and Italian authors. Hence he drew the elements of that knowledge of the customs, manners, and habits of antiquity, by which his works are so eminently distinguished. Marini, soon after, went to Rome, and was anxious that Poussin should accompany him; but this the artist found impossible, from the number of unfinished commissions on his hands. In the ensuing year, however, 1624, his long-cherished wish was accomplished, and he trod the streets of the Eternal City.

Among the innumerable pilgrims who have thronged to that mighty shrine, no one ever, perhaps, approached it with deeper reverence than Poussin, or studied in the school of antiquity with more zeal and success. He commenced his labours with that enthusiasm which the objects around him could not fail to inspire, and comprehended in the round of his studies the different sciences which bore collaterally upon his art. Some of his finest works are among those which he produced at this period; but his talents were not at first appreciated in Rome, and the spectre of penury still haunted his study. His friend Marini had gone to Naples, where he died, and the Cardinal Barberini, to whose favour he had been especially recommended, was absent on a legation in Spain. Among other works which his necessities compelled him to dispose of at this time for a trifling sum, was "The Ark of God in the hands of the Philistines," which was purchased from him for fifty crowns, and sold shortly afterwards to the Duc de Richelieu for one thousand. Accident and ill health combined with poverty to overcloud

the early part of his abode in Rome. The French were then very unpopular, on account of some differences existing between the Court of France and the Holy See. Poussin was assaulted in the streets by some of the Pope's soldiery, severely wounded by a sabre-cut in the hand, and only escaped more serious injury by the spirit and resolution with which he defended himself. After recovering from this injury, he was again rendered unable to pursue his art by a lingering illness; in the course of which a fellow-countryman, named Jean Dughet, took him to his own home, and treated him with care, which soon restored him to health. Six months afterwards he married the daughter of his host, and subsequently adopted his wife's brother, Gaspar, who assumed his name, and has shared its honours by his splendid landscapes. With part of his wife's portion Poussin purchased a house on the Pincian Hill, which is still pointed out as an object of interest to travellers and students.

From this period the fortune of Poussin began to improve. Relieved from his embarrassments, and tranquillized by domestic comfort, he proceeded in the calm exercise of his powers; and the fine works on which his reputation is founded were painted in rapid succession. Cardinal Barberini, who had returned to Rome, engaged him to execute one of the large paintings ordered to be copied in mosaic for St. Peter's Church. The subject was the Martyrdom of St. Erasmus; but the picture, which is now in the Vatican, furnishes no reason for regret that Poussin did not more frequently employ himself on works of large dimensions. A circumstance occurred at this time which it is gratifying to relate, as it exhibits two distinguished men engaged in the honourable task of promoting the success and vindicating the reputation of each other. When Poussin arrived at Rome, he found the lovers of art divided into two parties, composed respectively of the admirers of Guido and Domenichino. Two pictures had been painted by those artists, which, as if to decide their rival claims, were hung opposite to each other in the church of San Gregorio. The subjects were similar; the one the Flagellation, the other the Martyrdom of the Saint from whom the church is named. The performance of Guido was the one most generally preferred: but Poussin formed a different judgment, and sat down to copy the picture of the less popular artist. Domenichino, on being informed of this, although he was then suffering from illness, ordered himself to be carried to the church, where he entered into conversation with Poussin, to whom he was personally unknown, and who indeed imagined him to be dead. A friendly intimacy was the consequence of this interview, which was

exceedingly advantageous to Poussin, as Domenichino took pleasure in communicating all that knowledge of art, which long experience had enabled him to acquire. Shortly after this Domenichino quitted Rome for Naples, and the storm of envy and detraction seemed to gather force in his absence. So much was his reputation injured, that the monks of the convent of San Girolamo della Carità, who had in their possession his superb picture of the Communion of St. Jerome, ordered it to be removed from the walls and consigned to a cellar as a thing utterly contemptible. This anecdote, were it not attested by unquestionable evidence, would be difficult to believe; for the merits of the picture require no deep knowledge of art to be duly appreciated: it is not less admirable in colour and effect than in sentiment and character. The intelligent monks, however, wishing for a picture to supply its place, engaged Poussin to paint one, acquainting him at the same time that they could save him the expense of canvass, by sending him a worthless daub, over which he might paint. The astonishment of Poussin on receiving the picture may be easily conceived. He immediately directed it to be carried to the church from whence it had been taken, and announced his intention to deliver a public disquisition on its merits. This he accordingly did to a large auditory, and with such force of reasoning and illustration, that malice was silenced and prejudice convinced; and the name of Domenichino assumed from that time its just rank in public estimation.

The pictures of Poussin, as he advanced in his career, were eagerly purchased by connoisseurs from all countries, and his fame was at length established throughout Europe. In 1638 a project was suggested to Louis XIII., by Cardinal Richelieu, for finishing the Louvre, and adorning the royal palaces, according to the magnificent plans of Francis I. The high reputation of Poussin marked him out as the person best qualified for the partial execution and entire superintendence of these splendid works; and accordingly a letter was transmitted to him by order of the French monarch, appointing him his principal painter, and requesting his immediate attendance at Paris. But so absorbed was the artist in his studies, and so unambitious was his temper, that he allowed two years to elapse before he attended to this flattering requisition; nor is it probable that he would have quitted Rome at all, had not a gentleman been despatched from the court of France to bring him. On his arrival, he was presented to the King, who received him with courtesy, and assigned him a liberal income. Placed in the full enjoyment of fame and wealth,

Poussin's situation might well appear enviable to his less favoured brethren in art. But his station, brilliant as it was, proved ill-suited to his disposition: and his letters to his friends in Rome were soon filled with the language of disappointment and complaint. He felt that he was no longer exercising his genius as an artist, but labouring as an artisan. Commissions were poured in upon him from the court with merciless rapidity, without the slightest calculation of the time requisite to the production of works of art. On one occasion he was required to execute a picture containing sixteen figures, larger than life, within six weeks. Nor was this the worst: the triflers of the court obtruded on him, with irritating politeness, the most insignificant employments; designs for chimney-pieces, ornamental cabinets, bindings for books, repairing pictures, &c. To complete the catalogue of annoyances, his coadjutors in the public works, Le Mercier the architect, and the painters Vouet and Fouquieres, thwarted and opposed him in every particular; until at length, worn out and disgusted, he applied for permission to return to Rome. This he obtained with some difficulty, and not without a stipulation that he should revisit Paris within twelve months. It is not improbable that the condition would never have been fulfilled; but the King's death in the following year released him from the obligation. The last works executed by Poussin in Paris were two allegorical subjects: the one, Time bringing Truth to light, and delivering her from the fiends, Malice and Envy; in which an allusion was most probably meant to the controversies in which he had been engaged: the other, in which his intention is less equivocal, is an imitation of bas-relief, in the ceiling of the Louvre, where his opponents, Fouquieres, Le Mercier, and Vouet, are consigned to the derision of posterity under the figures of Folly, Ignorance, and Envy.

Perhaps the happiest, and not an inconsiderable, portion of Poussin's life, was that which intervened between his return to Rome and his death. Experience of the cabals and disquietudes of Paris had no doubt taught him to value the classical serenity of his adopted home. Although in possession of great and undisputed fame, and sufficiently affluent, he continued to labour in his art with unrelaxing diligence, if that may be called labour which constituted his highest gratification. His talents and moral worth drew round him a large circle of the learned and the polite, who anxiously sought his society during his leisure hours; and in his evening walks on the Pincian Hill, he might have been said to resemble one of the philosophers of antiquity, surrounded by his friends and disciples. Thus he

descended, with tranquil dignity, into the vale of life. In 1665 he suffered from a stroke of the palsy, and, shortly after, the death of his wife plunged him into the deepest affliction. He perceived his own end to be approaching, and awaited it with calm resignation. He died in his 72d year, A.D. 1665, and was buried with public honours in the church of San Lorenzo in Lucina.

The pictures of Poussin are so numerous, and so generally dispersed, that every one, whose attention has been directed to the arts, must have a pretty accurate impression of his style. It is a style of perfect originality, reminding us somewhat of ancient art, but without a tincture of imitation of any modern master. For a short time Poussin sought a model in the school of Titian, but turned from that task to copy the pictures discovered among the ruins of ancient Rome. Apparently he wished to give his works something of the subdued tone which Time has communicated to those relics; and hence, in some of his pictures, there is a singular discrepancy between the subject and the effect. He delighted to paint antique revels, bacchanalians, dancing nymphs, &c.; but his tints never accord with gay subjects, nor exhibit the vivacity and freshness proper to such scenes. The solemn and sombre hue of his colouring is far better adapted to grand or pathetic subjects. Considering the implicit and almost idolatrous admiration with which Poussin regarded the antique statues, it is astonishing that he should not have infused into his own forms more of the spirit in which these are conceived; for, in this point, imitation could not have been carried too far. But the reverse is the case: his figures are direct transcripts of individual models, usually correct in proportion, but seldom rendered ideal, or generalized into beauty. A still greater defect is chargeable on his composition, which is almost invariably scattered and confused, without a centre of interest or point of unity. His principal figures are mixed up with the subordinate ones, and those again with the accessories in the back-ground. What, then, are the qualities by which Poussin has acquired his high reputation? The principal one we conceive to consist in that very simplicity and severity, by which perhaps the eye is at first offended. He appears to feel himself above the necessity of superficial ornament. He is always thoroughly in earnest; his figures perform their business with an emphasis which rivets our attention, we become identified with the subject, and lose all thought of the painter in his performance. This is a result never produced by an inferior artist. On the whole, although we cannot assign Poussin a place by the side of Raffaelle, Rubens, Titian, and some others, who may be

considered the giants of art, and compose the foremost rank, he certainly stands among those who are most eminent in the second. His compositions, which are very numerous, are varied with great skill, and surprise us, not unfrequently, with novel and striking combinations; and several among them—we may adduce particularly the Ark of God among the Philistines, the Deluge, and the Slaughter of the Innocents—could only have originated in a mind of a very exalted order.

Several of Poussin's finest works are in this country. In the Dulwich Gallery there is, we believe, the largest number to be found in any one collection. Among those, the subject of the Angels appearing to Abraham is treated with considerable grace and beauty. The picture of Moses striking the rock, in the possession of the Marquis of Stafford, is one of Poussin's most profound and elaborate performances; and, in the National Gallery, the two Bacchanalian subjects will furnish a full idea both of his powers and deficiencies in treating that favourite class of compositions.

The reader will find a more detailed account of the life and works of Poussin in Lanzi's 'Storia Pittorica dell' Italia,' and Bellori's 'Vite di Pittori moderni.' There is an English life of him written by Maria Graham. Much critical information concerning his style and performances will be found in the writings of Mengs, Reynolds, and Fuseli.

[Holy Family; from a picture by Poussin.]



Presented by A. Smith

W HARVEY, M.D.

*From the original Lecture by Dr. G. C. L. Smith
in the physician of the Egyptian Club*

A.

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WILLIAM HARVEY was born on the 1st of April, 1578, at Folkstone, on the southern coast of Kent. He was the eldest of nine children ; of the rest little more is known than that several of the brothers were among the most eminent merchants in the city of London during the reigns of the two first Stuarts. His father, Thomas Harvey, followed no profession. He married Joanna Falke at the age of twenty, and lived upon his own estate at Folkstone. This property devolved by inheritance upon his eldest son ; and the greatest part of it was eventually bequeathed by him to the college at which he was educated.

At ten years of age he commenced his studies at the grammar school in Canterbury ; and upon the 31st of May, 1593, soon after the completion of his fifteenth year, was admitted as a pensioner at Caius College, Cambridge.

At that time a familiar acquaintance with logic and the learned languages was indispensable as a first step in the prosecution of all the branches of science, especially of medicine ; and the skill with which Harvey avails himself of the scholastic form of reasoning in his great work on the Circulation, with the elegant Latin style of all his writings, particularly of his latest work on the Generation of Animals, afford a sufficient proof of his diligence in the prosecution of these preliminary studies during the next four years, which he spent at Cambridge. The two next were occupied in visiting the principal cities and seminaries of the Continent. He then prepared to address himself to those investigations to which the rest of his life was devoted ; and the scene of his introduction to them could not have been better chosen

than at the University of Padua, where he became a student in his twenty-second year.

The ancient physicians gathered what they knew of anatomy from inaccurate dissections of the lower animals ; and the slender knowledge thus acquired, however inadequate to unfold the complicated functions of the human frame, was abundantly sufficient as a basis for conjecture, of which they took full advantage. With them every thing became easy to explain, precisely because nothing was understood ; and the nature and treatment of disease, the great object of medicine and of its subsidiary sciences, was hardly abandoned to the conduct of the imagination, and sought for literally among the stars. Nevertheless, so firmly was their authority established, that even down to the close of the sixteenth century the naturalists of Europe still continued to derive all their physiology, and the greater part of their anatomy and medicine, from the works of Aristotle and Galen, read not in the original Greek, but re-translated into Latin from the interpolated versions of the Arabian physicians. The opinions entertained by these dictators in the republic of letters, and consequently by their submissive followers, with regard to the structure and functions of the organs concerned in the circulation, were particularly fanciful and confused, so much so that it would be no easy task to give an intelligible account of them that would not be tedious from its length. It will be enough to say, that a scarcely more oppressive mass of mischievous error was cleared away from the science of astronomy by the discovery of Newton, than that from which physiology was disengaged by the discovery of Harvey.

But though the work was completed by an Englishman, it is to Italy that, in anatomy, as in most of the sciences, we owe the first attempts to cast off the thrall of the ancients. Mundinus had published a work in the year 1315, which contained a few original observations of his own ; and his essay was so well received that it remained the text-book of the Italian schools of anatomy for upwards of two centuries. It was enriched from time to time by various annotators, among the chief of whom were Achillini, and Berengarius, the first person who published anatomical plates. But the great reformer of anatomy was Vesalius, who, born at Brussels in 1514, had attained such early celebrity during his studies at Paris and Louvain, that he was invited by the republic of Venice in his twenty-second year to the chair of anatomy at Padua, which he filled for seven years with the highest reputation. He also taught at Bologna, and subsequently, by the invitation of Cosmo de' Medici, at Pisa. The first edition of his

work ‘*De Corporis Humani fabricâ*,’ was printed at Basle in the year 1543; it is perhaps one of the most successful efforts of human industry and research, and from the date of its publication begins an entirely new era in the science of which it treats. The despotic sway hitherto maintained in the schools of medicine by the writings of Aristotle and Galen was now shaken to its foundation, and a new race of anatomists eagerly pressed forward in the path of discovery. Among these no one was more conspicuous than Fallopius, the disciple, successor, and in fame the rival, of Vesalius, at Padua. After him the anatomical professorship was filled by Fabricius ab Aquapendente, the last of the distinguished anatomists who flourished at Padua in the sixteenth century.

Harvey became his pupil in 1599, and from this time he appears to have applied himself seriously to the study of anatomy. The first germ of the discovery which has shed immortal honour on his name and country was conceived in the lecture-room of Fabricius.

He remained at Padua for two years; and having received the degree of Doctor in Arts and Medicine with unusual marks of distinction, returned to England early in the year 1602. Two years afterwards he commenced practice in London, and married the daughter of Dr. Launcelot Browne, by whom he had no children. He became a fellow of the College of Physicians when about thirty years of age, having in the mean time renewed his degree of Doctor in Medicine at Cambridge; and was soon after elected Physician to St. Bartholomew’s Hospital, which office he retained till a late period of his life.

On the 4th of August, 1615, he was appointed Reader of Anatomy and Surgery to the College of Physicians. From some scattered hints in his writings it appears that his doctrine of the circulation was first advanced in his lectures at the college about four years afterwards; and a note-book in his own handwriting is still preserved at the British Museum, in which the principal arguments by which it is substantiated are briefly set down, as if for reference in the lecture-room. Yet with the characteristic caution and modesty of true genius, he continued for nine years longer to reason and experimentalize upon what is now considered one of the simplest, as it is undoubtedly the most important, known law of animal nature; and it was not till the year 1628, the fifty-first of his life, that he consented to publish his discovery to the world.

In that year the ‘*Exercitatio Anatomica de Motu Cordis et Sanguinis*’ was published at Frankfort. This masterly treatise begins with a short outline and refutation of the opinions of former anatomists

on the movement of the animal fluids and the function of the heart ; the author discriminating with care, and anxiously acknowledging the glimpses of the truth to be met with in their writings ; as if he had not only kept in mind the justice due to previous discoveries, and the prudence of softening the novelty and veiling the extent of his own, but had foreseen the preposterous imputation of plagiarism, which, with other inconsistent charges, was afterwards brought forward against him. This short sketch is followed by a plain exposition of the anatomy of the circulation, and a detail of the results of numerous experiments ; and the new theory is finally maintained in a strain of close and powerful reasoning, and followed into some of its most important consequences. The whole argument is conducted in simple and unpretending language, with great perspicuity, and scrupulous attention to logical form.

The doctrine announced by Harvey may be briefly stated thus :—

When the blood supplied for the various processes which are carried on in the living body has undergone a certain degree of change, it requires to be purified by the act of respiration. For this purpose it is urged onwards by fresh blood from behind into the veins ; and returning in them from all parts of the body, enters a cavity of the heart called the *right auricle*. At the same time the purified blood returning from the lungs by the pulmonary veins, passes into the *left auricle*. When these two cavities, which are distinct from each other, are sufficiently dilated, they contract, and force the blood which they contain into two other much more muscular cavities called respectively the right and left *ventricle*, all retrogression into the auricles being prevented by valves, which admit of a passage in one direction only. The ventricles then contract in their turn with great force, and at the same instant ; and propel their blood, the right, by the pulmonary artery into the lungs ; the left, which is much the stronger of the two, into all parts of the body, by the great artery called the *aorta*, and its branches ; all return being prevented as before by valves situated at the orifices of those vessels, which are closed most accurately when the ventricles relax, by the backward pressure of the blood arising from the elasticity of the arteries. Thus the purified blood passes from the lungs by the pulmonary veins through the left auricle into the ventricle of the same side, by which it is distributed into all parts of the body, driving the vitiated blood before it ; and the vitiated blood is pushed into and along the veins to the right auricle, and thence is sent into the right ventricle, which propels it by the pulmonary artery through the lungs. In this manner a double circulation is kept up by the sole

agency of the heart, through the lungs, and through the body ; the contractions of the auricles and ventricles taking place alternately. To prevent any backward motion of the blood in the superficial veins, which might happen from their liability to external pressure, they are also provided with simple and very complete valves which admit of a passage only towards the heart. They were first remarked by Fabricius ab Aquapendente, and exhibited in his lectures to Harvey among the rest of his pupils ; but their function remained a mystery till it was explained by the discovery of the circulation. It is related by Boyle, upon Harvey's own authority, that the first idea of this comprehensive principle suggested itself to him when considering the structure of these valves.

The pulmonary circulation had been surmised by Galen, and maintained by his successors ; but no proof even of this insulated portion of the truth, more than amounted to strong probability, had been given till the time of Harvey ; and no plausible claim to the discovery, still less to the demonstration, of the general circulation has ever been set up in opposition to his. Indeed its truth was quite inconsistent with the ideas everywhere entertained in the schools on the functions of the heart and other viscera, and was destructive of many favourite theories. The new doctrine, therefore, as may well be supposed, was received by most of the anatomists of the period with distrust, and by all with surprise. Some of them undertook to refute it ; but their objections turned principally on the silence of Galen, or consisted of the most frivolous cavils : the controversy, too, assumed the form of personal abuse even more speedily than is usually the case when authority is at issue with reason. To such opposition Harvey for some time did not think it necessary to reply ; but some of his friends in England, and of the adherents to his doctrine on the Continent, warmly took up his defence. At length he was induced to take a personal share in the dispute in answer to Riolanus, a Parisian anatomist of some celebrity, whose objections were distinguished by some show of philosophy, and unusual abstinence from abuse. The answer was conciliatory and complete, but ineffectual to produce conviction ; and in reply to Harvey's appeal to direct experiment, his opponent urged nothing but conjecture and assertion. Harvey once more rejoined at considerable length ; taking occasion to give a spirited rebuke to the unworthy reception he had met with, in which it seems that Riolanus had now permitted himself to join ; adducing several new and conclusive experiments in support of his theory ; and entering at large upon its value in simplifying physiology and the study of diseases, with

other interesting collateral topics. Riolanus, however, still remained unconvinced ; and his second rejoinder was treated by Harvey with contemptuous silence. He had already exhausted the subject in the two excellent controversial pieces just mentioned, the last of which is said to have been written at Oxford about 1545 ; and he never resumed the discussion in print. Time had now come to the assistance of argument, and his discovery began to be generally admitted. To this indeed his opponents contributed by a still more singular discovery of their own, namely, that the facts had been observed, and the important inference drawn long before. This was the mere allegation of envy, chafed at the achievements of another, which, from their apparent facility, might have been its own. It is indeed strange that the simple mechanism thus explained should have been unobserved or misunderstood so long ; and nothing can account for it but the imperceptible lightness as well as the strength of the chains which authority imposes on the mind.

In the year 1623 Harvey became Physician Extraordinary to James I., and seven years later was appointed Physician to Charles. He followed the fortunes of that monarch, who treated him with great distinction, during the first years of the civil war, and he was present at the battle of Edgehill in 1642. Having been incorporated Doctor of Physic by the University of Oxford, he was promoted by Charles to the Wardenship of Merton College in 1645 ; but he did not retain this office very long, his predecessor Dr. Brent being reinstated by the parliament after the surrender of Oxford in the following year.

Harvey then returned to London and resided with his brother Eliab at Cockaine-house in the Poultry. About the time of Charles's execution he gave up his practice, which had never been considerable, probably in consequence of his devotion to the scientific, rather than the practical parts of his profession. He himself, however, attributed his want of success to the enmity excited by his discovery. After a second visit to the Continent, he secluded himself in the country, sometimes at his own house in Lambeth, and sometimes with his brother Eliab at Combe in Surrey. Here he was visited by his friend Dr. Ent in 1651, by whom he was persuaded to allow the publication of his work on the Generation of Animals. It was the fruit of many years of experiment and meditation ; and though the vehicle of no remarkable discovery, is replete with interest and research, and contains passages of brilliant and even poetical eloquence. The object of his work is to trace the germ through all its changes to the period of maturity ; and the illustrations are principally drawn from the pheno-

mena exhibited by eggs in the process of incubation, which he watched with great care, and has described with minuteness and fidelity. The microscope had not at that time the perfection it has since attained ; and consequently Harvey's account of the first appearance of the chick is somewhat inaccurate, and has been superseded by the observations of Malpighi, Hunter, and others. The experiments upon which he chiefly relied in this department of natural history had been repeated in the presence of Charles I., who appears to have taken great interest in the studies of his physician.

In the year 1653, the seventy-fifth of his life, Harvey presented the College of Physicians with the title-deeds of a building erected in their garden, and elegantly fitted up at his expense, with a library and museum, and commodious apartments for their social meetings. Upon this occasion he resigned the Professorship of Anatomy, which he had held for nearly forty years, and was succeeded by Dr. Glisson.

In 1654 he was elected to the Presidency of the College, which he declined on the plea of age ; and the former President, Sir Francis Prujean, was re-elected at his request. Two years afterwards he made a donation to the college of a part of his patrimonial estate to the yearly value of £56, as a provision for the maintenance of the library and an annual festival and oration in commemoration of benefactors.

At length his constitution, which had long been harassed by the gout, yielded to the increasing infirmities of age, and he died in his eightieth year, on the 3d of June, 1657. He was buried at Hempstead in Essex, in a vault belonging to his brother Eliab, who was his principal heir, and his remains were followed to the grave by a numerous procession of the body of which he had been so illustrious and munificent a member.

The best edition of his works is that edited by the College of Physicians in 1766, to which is prefixed a valuable notice of his life, and an account of the controversy to which his discovery of the circulation gave rise. All that remain of his writings in addition to those which have been already mentioned, are an account of the dissection of Thomas Parr, who died at the age of 153, and a few letters addressed to various Continental anatomists. His lodgings at Whitehall had been plundered in the early part of the civil war, of many papers containing manuscript notes of experiments and observations, chiefly relating to comparative anatomy. This was a loss which he always continued to lament. The missing papers have never been recovered.

In person he was below the middle size, but well-proportioned. He had a dark complexion, black hair, and small lively eyes. In his youth

his temper is said to have been very hasty. If so he was cured of this defect as he grew older ; for nothing can be more courteous and temperate than his controversial writings, and the genuine kindness and modesty which were conspicuous in all his dealings with others, with his instructive conversation, gained him many attached and excellent friends. He was fond of meditation and retirement ; and there is much in his works to characterize him as a man of warm and unaffected piety.

There are several histories of his life ; a very elegant one has lately been published in a volume of the Family Library, entitled ‘Lives of British Physicians.’



1900-1901

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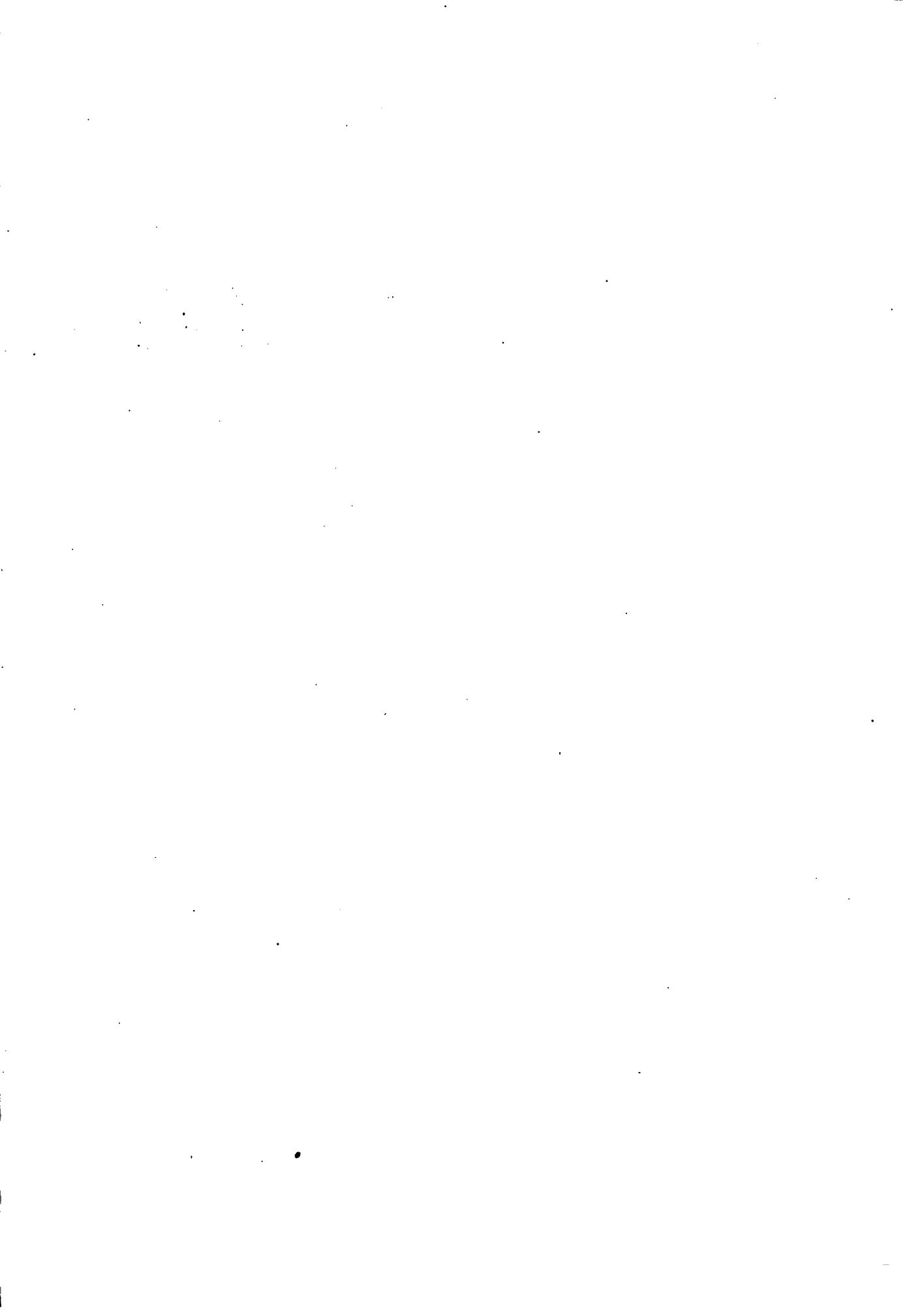
BOSTON - MASS.

SIR JULIAN

A small colony of birds
in the neighborhood of Boston

1900-1901

COLLECTOR'S INDEX





POSTERITY is likely to do scanty justice to the merits of Banks, when the grateful recollections of his contemporaries shall have passed away. His name is connected with no great discovery, no striking improvement; and he has left no literary works from which the extent of his industry, or the amount of his knowledge can be estimated. Yet he did much for the cause of science; much by his personal exertions, more by a judicious and liberal use of the advantages of fortune. For more than half a century a zealous and successful student of natural history in general, and particularly of botany, the history of his scientific life is to be found in the records of science during that long and active period. We shall not attempt to compress so intricate and extensive a subject within the brief limits of three or four pages; but confine ourselves to a short sketch of his character and personal adventures. Some fitting person will, it is to be hoped, ere too late, undertake to write the life of our distinguished countryman upon a scale calculated to do justice to his merits: at present this task is not only unperformed, but unattempted.

Joseph Banks was born in London, February 13, 1743. Of his childhood we find few memorials. He passed through the ordinary routine of education; having been first committed to the care of a private tutor at home, then placed at Harrow, afterwards at Eton, and finally sent to complete his studies at Christchurch, Oxford. Born to the inheritance of an ample fortune, and left an orphan at the age of eighteen, it is no small praise that he was not allured by the combined temptations of youth, wealth, and freedom, to seek his happiness in vicious, or even idle pleasures. Science, in one of its most attractive branches, the study of animated nature, was his amusement as a school-boy, and the favourite pursuit of his mature years: and he was rewarded for his devotion, not merely in the rank and estimation which

he obtained by its means, but also in his immunity from the dangers which society throws in the way of those who have the means of gratifying their own passions, and the vanities and interests of their friends.

He quitted the university in the year 1763. In 1766 he gave a proof of his zeal for knowledge by engaging in a voyage to Newfoundland. He was induced to choose that most unattractive region, by having the opportunity of accompanying a friend, Lieutenant Phipps, afterwards Lord Mulgrave, well known as a navigator of the Polar Seas, who was sent out in a ship of war to protect the fisheries. Soon after his return a much more interesting and important field of inquiry was opened to him by the progress of discovery in the southern hemisphere. In 1764 Commodore Byron, in 1766 Captains Wallis and Carteret were sent into the South Sea, to investigate the geography of that immense and then unfrequented region. These expeditions were succeeded in 1768 by another under the command of Captain Cook, who first obtained celebrity as a navigator upon this occasion. Lord Sandwich, then First Lord of the Admiralty, possessed an estate in Lincolnshire on the borders of Whittlesea Mere. Mr. Banks's chief property lay in the same neighbourhood: and it so chanced that similarity of tastes, and especially a common predilection for all aquatic amusements, had produced a great intimacy between the statesman and his young country neighbour. To this fortunate circumstance it may probably be ascribed, that on Mr. Banks expressing a wish to accompany the projected expedition, his desire was immediately granted. His preparations were made on the most liberal scale. He laid in an ample store of such articles as would be useful or acceptable to the savage tribes whom he was about to visit: and besides the usual philosophical apparatus of a voyage of discovery, he engaged two draughtsmen to make accurate representations of such objects as could not be preserved, or conveyed to England; and he secured the services of Dr. Solander, a Swedish naturalist, a pupil of Linnæus, who had previously been placed on the establishment of the British Museum. The history of this voyage belongs to the life of Cook. The expedition bent its course for the Southern Ocean, through the Straits of Le Maire, at the southern end of America. Mr. Banks and Dr. Solander landed on the desolate island of Terra del Fuego, where the severity of the cold had very nearly proved fatal to several of their party. Dr. Solander in particular was so entirely overcome by the drowsiness consequent on extreme cold and exhaustion, that it was with great difficulty, and by the unwearied exertion and resolution of his

more robust companion, that he was prevented from falling into that sleep which is the forerunner of death. Their farther course lay through the islands of the Pacific Ocean to Otaheite, which had been selected as a fitting place for the main object of the voyage, the observing of the passage of Venus over the sun's disk. At that island their stay was consequently prolonged for several months, during which the Europeans and the natives mingled together, generally on the most friendly terms. In this intercourse Mr. Banks took a very leading part. His liberality, and the high station which he evidently held among the strangers, conciliated the attachment and respect of the unpolished islanders: and the mingled suavity and firmness of his temper and demeanour rendered him singularly fitted both to protect the weaker party from the occasional wantonness or presumption of their visitors, and to check their knavery, and obtain satisfaction for the thefts which they not unfrequently committed. Once the astronomical purposes of the navigators were nearly frustrated by the loss of the large brass quadrant; and the recovery of this important instrument was chiefly due to the exertions and influence of Mr. Banks. Both hemispheres owe to him a tribute of gratitude; for while he gave the savages the improved tools, the esculent vegetables, and the domesticated animals of Europe, his exertions led to the introduction of the bread-fruit, and of the productive sugar-cane peculiar to Otaheite, into our West-India colonies.

After the lapse of three years the voyagers returned home, and were received with lively interest by all classes of society. Part of their collections were lost through an accident which happened to the vessel: but the greater portion was preserved, and their novelty and beauty excited the admiration of naturalists. George III., who delighted in everything connected with horticulture and farming, manifested a warm interest in inquiring into the results of the expedition, and conceived a liking for the young traveller, which continued unimpaired even to the close of his public life.

It was Mr. Banks's intention to accompany Captain Cook in his second voyage, in 1772: but the Navy Board showed no willingness to provide that accommodation which the extent of his preparations and the number of his scientific followers required, and he gave up the project, which indeed he could not satisfactorily execute. In the summer of that year he went to Iceland. Passing along the western coast of Scotland, he was led to visit Staffa, in consequence of local information; and to his description that singular island was first indebted for its general celebrity. He spent a month in Iceland. An account of this visit

has been published by M. Von Troil, a Swedish clergyman, who formed one of the party. On this, as on other occasions, Mr. Banks, unwearied in quest of knowledge, seemed careless of the fame to which most would have aspired as the reward of their labours. Of none of his travels has he himself given any account in a separate publication; indeed, a few papers in the Horticultural Transactions, and a very curious account of the causes of mildew in corn, not printed for sale, constitute the mass of his published works. But his visit was productive of much good to the Icelanders, though it remained uncommemorated in expensive quartos. He watched over their welfare, when their communication with Denmark was interrupted by war between that country and England; and twice sent cargoes of corn, at his own expense, to relieve their sufferings in seasons of scarcity. His benevolence was warmly acknowledged by the Danish Court.

Returning to England, Mr. Banks, at the early age of thirty, entered on that tranquil and useful course of life, from which during a long series of years he never deviated. His thirst for travel was checked or satiated; he undertook no more distant expeditions, but he ceased not to cultivate the sciences, for which he had undergone so many hardships. It was long hoped that he would publish some account of the rich harvest of vegetable productions which he had collected in the unknown regions of the Pacific; and for this purpose it was known that he had caused a very large number of plates to be engraved at a great expense: but, most probably owing to the death of Solander, these have never been given to the world. But if he hesitated to communicate himself to the public the results of his labours, in amends his museum and his library were placed most freely at the command of those who sought, and were able to profit by his assistance; and to these sources many splendid works, especially on botany, have mainly owed their merits, and perhaps their existence.

From the period of his return from Iceland Mr. Banks took an active part in the affairs of the Royal Society. His house was constantly open to men of science, whether British or foreign, and by the urbanity of his manners, and his liberal use of the advantages of fortune, he acquired that popularity which six years afterwards led to his election as President of that distinguished body. Two or three years afterwards a dangerous schism had nearly arisen in the Society, chiefly in consequence of the unreasonable anger of a party of mathematicians, headed by Dr. Horsley, afterwards Bishop of St. David's, who looked with contempt on sciences unsusceptible of mathematical proof, and loudly exclaimed against the chair of Newton being

filled, as they phrased it, by an amateur. It would be little profitable to rake up the embers of an ancient and unworthy feud. We shall only state therefore that Banks was elected in November, 1778; that for some time a violent opposition was raised against him; and that in January, 1784, the Society, by a formal resolution, declared itself satisfied with the choice which it had made. Horsley and a few others seceded, and for the rest of his life Banks continued the undisputed and popular president; a period of forty-one years from the epoch of his election.

We have said that at an early age Mr. Banks was fortunate in gaining the royal favour; marks of which were not wanting. In 1781 he was created a baronet; in 1795 he received the Order of the Bath, then very rarely bestowed upon civilians and commoners; and in 1797 he was made a Privy Councillor. The friendship between the King and the subject was cemented by similarity of pursuits; for the latter was a practical farmer as well as a philosopher, and under his care the value of his estates in Lincolnshire was considerably increased by improvements in the drainage of that singular country, in the direction of which Sir Joseph took an active part. He is said to have possessed such influence over the King's mind, that ministers sometimes availed themselves of it to recommend a measure unpalatable to their honest but somewhat obstinate master. We know not whether this be better founded than most other stories of back-stairs influence, easily thrown out and difficult to be refuted: it is at least certain that if Banks possessed such power, he deserves great credit for the singular moderation with which he used it. For himself he asked and received nothing: fortunately his station in society was one which renders disinterestedness an easy, if not a common virtue. His influence was directed to facilitate scientific undertakings, to soften to men of science the inconveniences of the long war of the Revolution, to procure the restoration of their papers and collections when taken by an enemy, or the alleviation of their sufferings in captivity. The French were especially indebted to him for such services. It is said by an eminent member of the Institute, in his Elogie upon Banks, that no less than ten times, collections addressed to the Jardin du Roi at Paris, and captured by the English, were restored by his intercession to their original destination. He thought that national hostility should find no entrance among followers of science; and the delicacy of his views on this subject is well displayed in a letter written on one of these occasions to Jussieu, where he says that he would on no account rob of a single botanical idea a man who had gone to seek

them at the peril of his life. In 1802 the National Institute of France, being then re-modelled, elected him at the head of their Foreign Associates, whose number was limited to eight. Cavendish, Maskelyne, and Herschel were also members of this distinguished list. In replying to the letter which announced this honour, Sir Joseph Banks expressed his gratitude in terms which gave offence to some members of that distinguished Society over which he himself presided. This exposed him to a virulent attack from an anonymous enemy, who published the letter in question in the English papers, accompanied by a most acrimonious address to the author of it; prompted, it is evident, not so much by a reasonable and patriotic jealousy, as by ancient pique, and a bitter detestation even of the science of revolutionary France.

Towards the close of life Sir Joseph Banks, who in youth had possessed a robust constitution, and a dignified and prepossessing figure, was grievously afflicted by gout. He endured the sufferings of disease with patience and cheerfulness, and died May 19, 1820, leaving no children. Lady Banks, whom he had married in 1779, survived him several years. His magnificent library he devised to the British Museum; and among other bequests for scientific purposes, he left an annuity to Mr. Frederic Bauer, an artist whom he had long employed in making botanical drawings from the garden at Kew, upon condition that he should continue the series.

Banksia ericifolia.

END OF VOL. I. ✓

**UNDER THE SUPERINTENDENCE OF THE SOCIETY FOR THE DIFFUSION OF
USEFUL KNOWLEDGE.**

THE

GALLERY OF PORTRAITS:

WITH

MEMOIRS.



VOLUME II.

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AND 13, PALL-MALL EAST.

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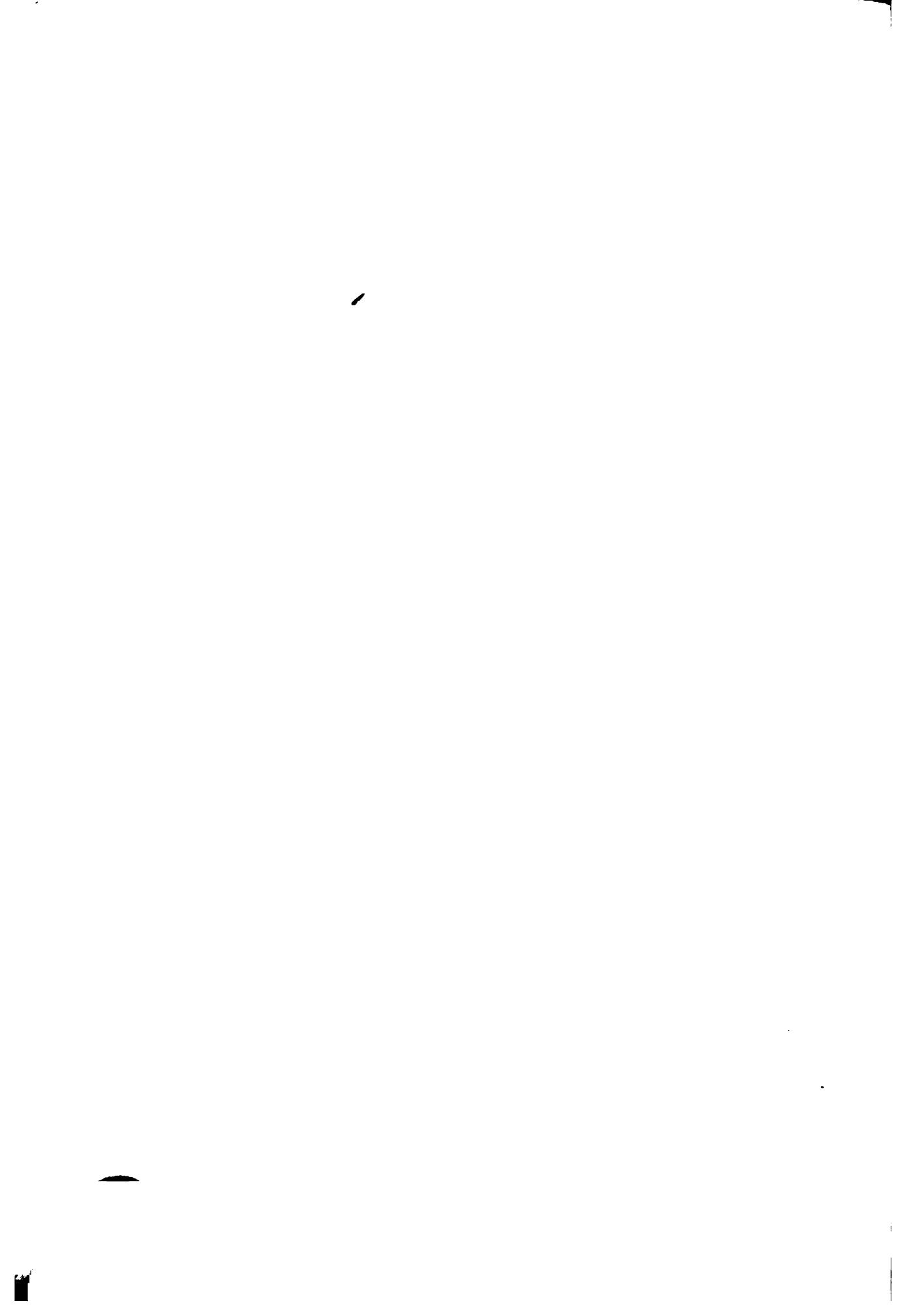
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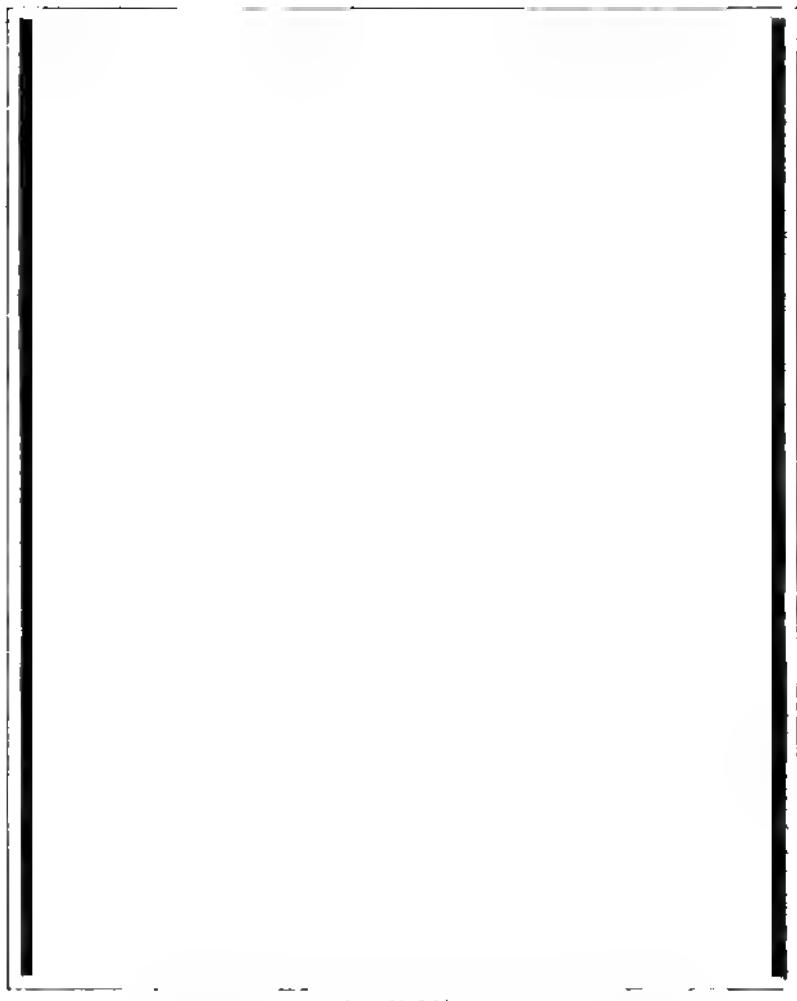
PORTRAITS, AND BIOGRAPHIES

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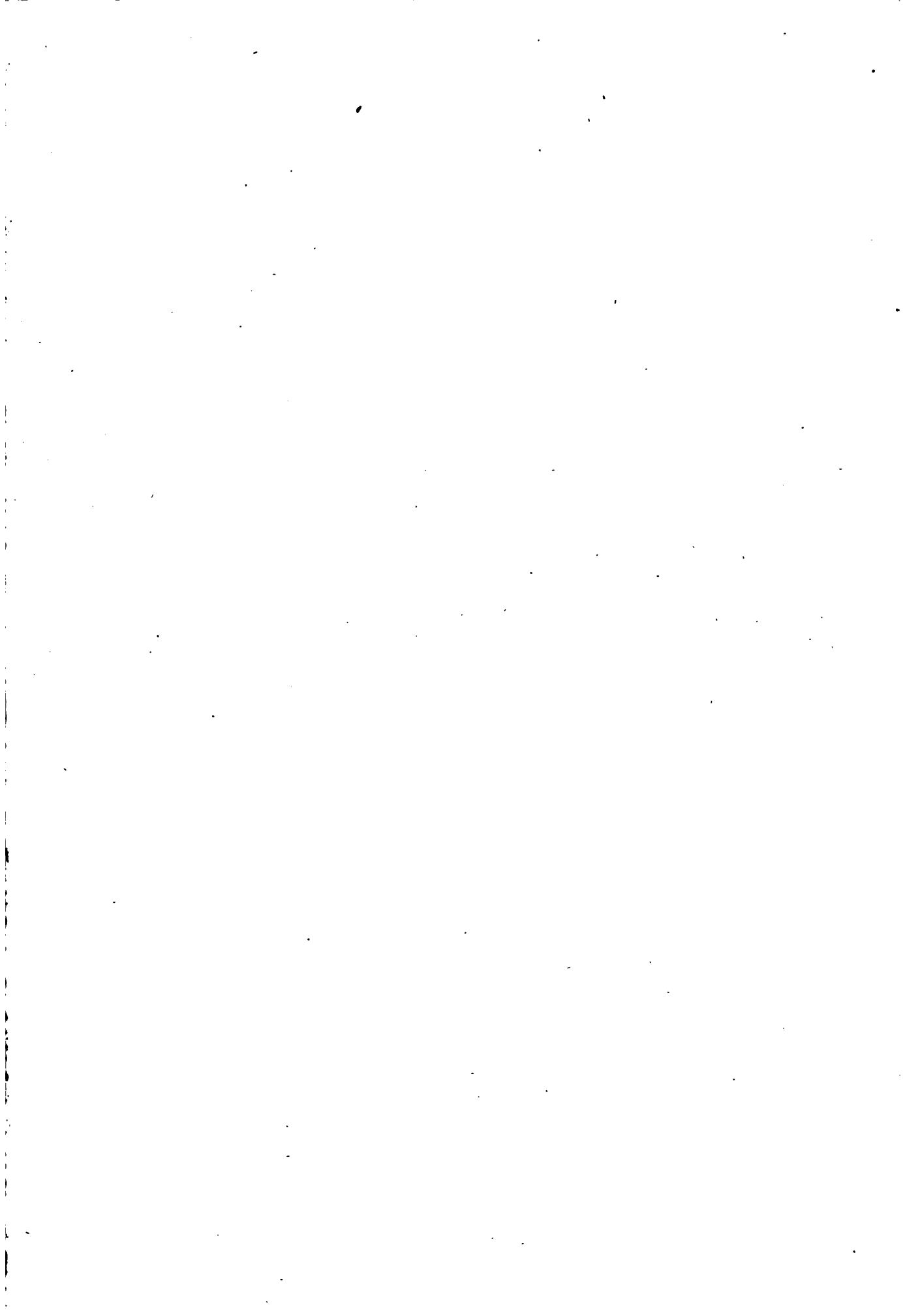
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Answers the following questions
in his own words

What is your name? - Little Bobby Miller - What is your age?

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GALLERY OF PORTRAITS.

JOHN SOMERS was born at Worcester, in an ancient house called the White Ladies, which, as its name seems to import, had formerly been part of a monastery or convent. The exact date of his birth cannot be ascertained, as the parish registers at Worcester, during the civil wars between Charles I. and his Parliament, were either wholly lost, or so inaccurately kept as not to furnish any authentic information. It appears probable, however, from several concurring accounts, that he was born about the year 1650. The family of Somers was respectable, though not wealthy, and had for several generations been possessed of an estate at Clifton, in the parish of Severn Stoke, in Gloucestershire. Admiral Sir George Somers, who in the reign of James I. was shipwrecked on the Bermudas, and afterwards died there, leaving his name to that cluster of islands, is said by Horace Walpole, in his 'Catalogue of Royal and Noble Authors,' to have been a member of the same family. The father of Somers was an

attorney, in respectable practice at Worcester ; who, in the civil wars, became a zealous Parliamentarian, and commanded a troop in Cromwell's army.

Of the early education of Somers, we have only a meagre and unsatisfactory account. The house called the White Ladies, in which he was born, was occupied by a Mr. Blurton, an eminent clothier of Worcester, who had married his father's sister. This lady, having no son of her own, adopted Somers from his birth, and brought him up in her house, which he always considered as his home till he went to the university. He appears for some years to have been a day-scholar in the college-school at Worcester, which before his time had attained a high character for classical education, under the superintendence of Dr. Bright, a clergyman of great learning and eminence. At a subsequent period, we find him at a private school at Walsall in Staffordshire : he is described by a school-fellow as being then "a weakly boy, wearing a black cap, and never so much as looking out when the other boys were at play." He seems indeed to have been a remarkably reserved and "sober-blooded" boy. At a somewhat later period Sir F. Winnington says of him, that "by the exactness of his knowledge and behaviour, he discouraged his father and all the young men that knew him. They were afraid to be in his company." In what manner his time was occupied from the period of his leaving school until he went to the university, is unknown. It has been suggested that he was employed for several years in his father's office, who designed him for his own department of the profession of the law. There is no positive evidence of this circumstance, though the conjecture is by no means improbable. It cannot, however, be doubted that, during this period, he devoted much of his time to the study of history and the civil law, and laid in a portion of that abundant store of constitutional learning which afterwards rendered him the ornament of his profession, and of the age in which he lived. About this time also he formed several connexions, which had great influence upon his subsequent success in life. The estates of the Earl of Shrewsbury were managed by Somers's father ; and as that young nobleman had no convenient residence of his own in Worcestershire, he spent much of his time at the White Ladies, and formed an intimate friendship and familiarity with young Somers. In 1672 he was also fortunate enough to be favourably noticed by Sir Francis Winnington, then a distinguished practitioner at the English bar, who was under obligations to his father for his active services in promoting his election

as a Member of Parliament for the city of Worcester. Winnington is described by Burnet as a lawyer who had "risen from small beginnings, and from as small a proportion of learning in his profession, in which he was rather bold and ready, than able." It is natural to suppose that such a man, feeling his own deficiencies, would readily perceive with what advantage he might employ the talents and industry of Somers in assisting him both in Westminster Hall and in Parliament. It was probably with this intention that Winnington advised him to go to the university, and to prosecute his studies with a view to being called to the bar.

In 1674 Somers was entered as a Commoner of Trinity College, Oxford, being then about three and twenty years of age. The particulars of his progress through the university are not recorded; but here, as at school, his contemporaries could perceive few indications of those splendid talents which afterwards raised him to such extraordinary eminence. His college exercises, some of which are still extant, are said to have been in no respect remarkable; and he quitted the university without acquiring any academical honours beyond his Bachelor's degree. Mr. Somers was called to the bar in 1676, by the Society of the Middle Temple; but he continued his residence at the university for several years afterwards, and did not remove to London until the year after his father's death, in 1681, upon which event he succeeded to his paternal estate at Severn Stoke. During his residence at Oxford he had the advantage of being introduced by the Earl of Shrewsbury and Sir F. Winnington to many of the patriotic opponents of the arbitrary measures of the Court. At this time he published several tracts, which sufficiently displayed to the world his familiar and accurate knowledge of constitutional history. His first acknowledged work was the Report of an Election Case, and is entitled 'The Memorable Case of Denzil Onslow, Esq., tried at the Assizes in Surrey, July 20, 1681, touching his election at Haslemere in Surrey.' His next performance was 'A Brief History of the Succession, collected out of the Records and the most authentic Historians.' This work was written at the time when the proposal to bring in a Bill to exclude the Duke of York from the succession occupied universal attention, and excited the most intense interest. The object of Mr. Somers's tract was to exhibit the principles upon which the Parliament of England has authority to alter, restrain, and qualify the right of succession to the Crown; and he places the historical arguments in support of this proposition in a forcible and convincing light. Indeed, though it

might be difficult to justify such a proposition by abstract arguments upon what is called the theory of the British Constitution, it has been so repeatedly acted upon in several periods of our history, that even in the time of Charles II. the practice had, as Somers justly contended, to all intents and purposes established and sanctioned the principle. An excellent tract upon the same subject, entitled ‘A just and modest Vindication of the two last Parliaments,’ which appeared shortly after the breaking up of the Oxford Parliament in March, 1681, has been partly ascribed to Somers. Burnet says that this tract, which he characterizes as “the best writ paper in all that time,” was at first penned by Algernon Sidney, but that a new draught was made by Somers, which was corrected by Sir William Jones. Upon occasion of the attempt of the Court party in 1681, by the illegal examination of witnesses under the direction of the King’s Counsel in open court, to induce a grand jury at the Old Bailey to find a true bill for high treason against the Earl of Shaftesbury, Mr. Somers wrote his celebrated tract entitled ‘The Security of Englishmen’s Lives, or the Trust, Power, and Duty of the Grand Juries of England explained.’ Of this work, Bishop Burnet says, “It passed as writ by Lord Essex, though I understood afterwards it was writ by Somers, who was much esteemed, and often visited by Lord Essex, and who trusted himself to him, and writ the best papers that came out in that time.” In later times, this work has been universally ascribed to Somers. During his residence at Oxford, Somers was not inattentive to polite literature; he published a translation of some of Ovid’s Epistles into English verse, which at the same time that it shows that he could never have borne so distinguished a rank as a poet, as he afterwards attained as a lawyer and statesman, is by no means a contemptible performance. His translations from Ovid, and a version of Plutarch’s Life of Alcibiades, are the only published proofs of his classical studies at Oxford.

In the year 1682 he removed to London, and immediately commenced an assiduous attendance upon the courts of law, which at that time was considered as the highway of the legal profession. Under the powerful patronage of Sir Francis Winnington, who had been Solicitor-General, and was then in the full stream of business, he rose with considerable rapidity into good practice at the bar. In 1683 he appeared as junior counsel to Winnington in the defence to an important political prosecution instituted against Pilkington and Shute, with several other persons, for a riot at the election of sheriffs for

the city of London. His employment in a case of so much public expectation may be taken as a proof that at that time his professional merits were in some degree appreciated; and in the reign of James II. his practice is said to have produced £700 a-year, which at that time was a very large income for a common lawyer of five years' standing. But such was the character for research and industry which he had attained within a very few years from the commencement of his professional career, that on the trial of the Seven Bishops in 1688, he was introduced as counsel into that momentous cause at the express and peremptory recommendation of Pollexfen, one of the greatest lawyers of that day. The rank of the defendants, the personal interest of the King in the question at issue, the general expectation excited by this conflict amongst all classes of the people, and above all, the event of the prosecution which drove James from his throne and kingdom, and immediately introduced the Revolution of 1688, render the trial of the Seven Bishops one of the most important judicial proceedings that ever occurred in Westminster Hall. It was no trifling testimony, therefore, to the high estimation in which Somers was held by experienced judges of professional merit, that he should be expressly selected by the counsel for the defendants to bear a part in the defence. We are told that upon the first suggestion of Somers's name, "objection was made amongst the Bishops to him, as too young and obscure a man; but old Pollexfen insisted upon him, and would not be himself retained without the other; representing him as the man who would take most pains and go deepest into all that depended on precedents and records*." How far the leading counsel for the Bishops were indebted to the industry and research of Somers, for the extent of learning displayed in their admirable arguments on that occasion, cannot now be ascertained; his own speech, as reported in the State Trials, contains a summary of the constitutional reasons against the existence of a dispensing power in the King, expressed in clear and unaffected language, and applied with peculiar skill and judgment to the defence of his clients.

The intimate connexion of Somers with the leaders of that political party by whom the Revolution was effected, and in particular with his early friend Lord Shrewsbury, leaves little room for doubt that he was actively employed in devising the means by which that important event was brought about. It is said by Tindal that he was admitted into the most secret councils of the Prince of Orange, and was one of those

* Kennett's Complete History, vol. iii. p. 513, n.

who planned the measure of bringing him over to England. Immediately upon the flight of James II., the Prince of Orange, by the advice of the temporary assembly which he had convened as the most proper representative of the people in the emergency of the time, issued circular letters to the several counties, cities, and boroughs of England, directing them to summon a Parliamentary Convention. On this occasion Mr. Somers was returned as a representative by his native city of Worcester. We find him taking a conspicuous part in the long and laborious debates which took place in that assembly respecting the settlement of the government. Upon a conference with the Lords upon the resolution, "that James II. having withdrawn himself out of the kingdom had abdicated the government, and that the throne had thereby become vacant," Mr. Somers spoke at great length, and with much learning, in support of the original resolution against some amendments proposed by the Lords. This resolution having been ultimately adopted by both Houses of Parliament, and the Prince and Princess of Orange having been declared King and Queen of England, a committee was appointed, of which Somers was a member, to bring in heads of such things as were necessary for securing the Protestant religion, the laws of the land, and the liberties of the people. The Report of this Committee, which was a most elaborate performance, having been submitted to the examination of a second committee, of which Somers was chairman, formed the substance of the Declaration of Rights which was afterwards assented to by the King and Queen and both Houses of Parliament, and thus adopted as the basis of the Constitution.

It is impossible to ascertain with precision the particular services rendered by Somers in the accomplishment of this great measure. There was perhaps no individual at that moment in existence who was so well qualified to lend important aid in conducting his country with safety through the difficulties and dangers of a change of government, and in placing the interests of the nation upon a secure and solid foundation. Fortunate was it for the people of England and their posterity that the services of a man of his industry and settled principles, of his sound constitutional information, and his rational and enlightened views of the relative rights and duties of kings and subjects, were at that critical juncture available to his country; and that, at the instant of the occurrence of this momentous revolution, his character was sufficiently known and appreciated to render those services fully effective.

Shortly after the accession of William and Mary, Somers was appointed Solicitor-General, and received the honour of knighthood. Bishop Burnet says, that in the warm debates which took place in Parliament on the bill respecting the recognition of the King and Queen, and the validity of the new settlement of the government, it was strongly objected by the Tories that the convention, not being summoned by the King's writ, had no legal sanction; and that Somers distinguished himself by the spirited and able manner in which he answered the objection. "He spoke," says Burnet, "with such zeal and such an ascendant of authority that none were prepared to answer it; so that the bill passed without more opposition. This was a great service done in a very critical time, and contributed not a little to raise Somers's character."

In April, 1692, Sir John Somers became Attorney-General, and in the month of March following was appointed Lord-Keeper of the Great Seal. While he presided in the Court of Chancery as Lord-Keeper, he delivered his celebrated judgment in the Bankers' case, which Mr. Hargrave describes as "one of the most elaborate arguments ever delivered in Westminster Hall." It is said that Lord Somers expended several hundred pounds in collecting books and pamphlets for this argument. In 1697 he was appointed Lord Chancellor, and raised to the peerage, with the title of Baron Somers of Evesham.

In the year immediately succeeding his elevation to the peerage, it was the fate of Lord Somers to experience the virulence of party animosity, and the selfishness and instability of royal favour. His influence with the King, and the moderation and good sense with which he had restrained the impetuosity of his own party, had been long the means of preserving the Whig administration; and the Tories saw plainly that there were no hopes for the attainment of their objects so long as Lord Somers retained the confidence of the King. William had been, from the commencement of his reign, continually vacillating between the two parties according to the circumstances of his affairs; at this period he was so incensed and embarrassed by the conduct of the contending parties in the House of Commons, that he readily listened to the leaders of the Tories, who assured him that they would undertake to manage the Parliament as he pleased, if he would dismiss from his councils the Lord Chancellor Somers, whom they represented to be peculiarly odious to the Commons. In fact, the Tory party in the House of Commons had, in the course of the stormy

session of Parliament which commenced in November, 1699, made several violent but ineffectual attacks upon the Lord Chancellor. The first charge brought against him was, that he had improperly dismissed many gentlemen from the commission of the peace: upon a full explanation of all the circumstances, this charge was proved to be so utterly groundless that it was abandoned by those who had introduced it. The second accusation had no better foundation than the first. Great complaints having been made of certain English pirates in the West Indies, who had plundered several merchant ships, it was determined to send out a ship of war for the purpose of destroying them. But as there was no fund to bear the charge of such an expedition, the King proposed to his ministers that it should be carried on as a private undertaking, and promised to subscribe £3,000 on his own account. In compliance with this recommendation, Lord Somers, the Duke of Shrewsbury, the Earls of Romney, Oxford, Bellamont, and several others, contributed a sufficient sum to defray the whole expense of the armament. Unfortunately one Captain Kidd was appointed to command the expedition, who was unprincipled enough to turn pirate himself, and having committed various acts of robbery on the high seas, was eventually captured, brought to England, and some time afterwards tried and executed for his offences. It was then insinuated that the Lord Chancellor and the other individuals who had subscribed towards the expedition were engaged as partners in Kidd's piratical scheme; so that an undertaking, which was not only innocent, but meritorious and patriotic, was construed by the blindness of party prejudice into a design for robbery and piracy. A resolution in the House of Commons, founded upon this absurd imputation, was rejected by a great majority. Shortly afterwards, after ordering a list of the Privy Council to be laid before the House, a question was moved in the House of Commons, "that an address should be made to his Majesty to remove John Lord Somers, Chancellor of England, from his presence and councils for ever." This motion, however, was also negatived by a large majority. The prosecution of these frivolous charges against Lord Somers was a source of perpetual irritation to the King, in consequence of the vexatious delay it occasioned to the public service, and the virulent party spirit which it introduced into the House of Commons; and it was under the influence of this feeling, and in order to deliver himself from a temporary embarrassment, that he selfishly determined to adopt the interested advice of the Tory leaders, and to remove the Lord Chancellor from his office. He accordingly intimated

to Lord Somers that it was necessary for his service that he should resign the seals, but wished him to make the resignation himself, in order that it might appear as if it was his own act. The Chancellor declined to make a voluntary surrender of the seals, as such a course might indicate a fear of his enemies, or a consciousness of misconduct in his office ; upon which Lord Jersey was sent with an express warrant for the seals, and Lord Somers delivered them to him without hesitation.

The malignity of party spirit was not satisfied by the dismissal of Lord Somers from his office, and from all participation in the government. Soon after his retirement, namely in the year 1701, the celebrated Partition Treaties gave occasion to much angry debate in both Houses of Parliament. His conduct, with respect to these treaties, seems to have been entirely irreproachable ; but it became the subject of much misrepresentation, and the most unreserved invective and abuse in the House of Commons. It appears that in 1698, when the King was in Holland, a proposal was made to him by the French Government for arranging the partition of some of the territories belonging to the crown of Spain upon the expected death of Charles II. This partition was to be made in certain defined proportions between the Electoral Prince of Bavaria, the Dauphin of France, and the Archduke Charles, the second son of the Emperor. The King entertained these proposals favourably, and wrote to Lord Somers, who was at that time Lord Chancellor, desiring his opinion upon them, and commanding him to forward to him a commission in blank under the great seal, appointing persons to treat with the Commissioners of the French Government. Lord Somers, after communicating with Lord Orford, the Duke of Shrewsbury, and Mr. Mountague, as he had been authorized to do, transmitted to the King their joint opinions, which suggested several objections to the proposed treaty, together with the required commission. This was the “ head and front of his offending ” in this respect ; for the treaty was afterwards negotiated abroad, and finally signed without any further communication with Lord Somers.

Understanding that he was accused in the House of Commons of having advised and promoted the Partition Treaties, Lord Somers requested to be heard in that House in his defence. His request being granted, he stated to the House, in a calm and dignified manner, the history of his conduct respecting the treaties, and contended, with much force and eloquence, that in the whole course of that transaction he had correctly and honestly discharged his duty both as Chancellor and as a Privy Councillor. After he had withdrawn, a warm debate

ensued, which terminated in a resolution, carried by a small majority, "that John, Lord Somers, by advising his Majesty to conclude the Treaty of Partition, was guilty of a high crime and misdemeanour." Similar resolutions were passed against the Earl of Orford and Lord Halifax, and all of them were impeached at the bar of the House of Lords. The articles of impeachment against Lord Somers principally charged him with having affixed the great seal to the blank commission sent to the King in Holland, and afterwards to the treaties; with having encouraged and promoted the piracies of Captain Kidd; and with having received grants from the Crown for his own personal emolument. To each of these articles Lord Somers answered promptly and fully; to the two first he replied the facts of each case as above related; and in answer to the third, he admitted that the King had been pleased to make certain grants to him, but denied that they had been made in consequence of any solicitation on his part. After many frivolous delays and repeated disputes between the two Houses, a day was fixed for the trial of the impeachment; on which day the Commons not appearing to prosecute their articles, the Lords, by a considerable majority, acquitted Lord Somers of the charges and dismissed the impeachment.

The violence and folly exhibited in the conduct of these proceedings opened the eyes of the King to his error in having changed his ministry at so critical a time. He found to his infinite disquietude that instead of enabling him to manage the Commons as they had promised, the Tory leaders had rendered them more intractable and imperious than before; and that instead of sincerely endeavouring to promote peace abroad and quiet government at home, they were actuated entirely by motives of private passion and revenge. In this state of affairs he again directed his attention to Lord Somers, in consequence, probably, of the urgent advice of Lord Sunderland, and wrote him a note from Loo, dated the 10th of October, 1701, assuring him of the continuance of his friendship. By the united exertions of Somers and Sunderland a negotiation was entered into with a view to the formation of a Whig ministry; but after some little progress had been made, the death of the King, in March 1702, put an end to the project, and the succession of Queen Anne confirmed the establishment of the Tory administration.

The state of parties for some years after the accession of Queen Anne excluded Somers from taking any active part in political affairs. It is probable that at this period of his life he devoted his attention to literature and science, as in 1702 he was elected President of the

Royal Society. He afterwards applied himself with diligence to the removal of several gross defects in the practice of the Courts of Chancery and Common Law. In 1706 he introduced into the House of Lords an extensive and effectual bill for the correction of such abuses. In passing through the House of Commons "it was found," says Burnet, "that the interest of under-officers, clerks, and attorneys, whose gains were to be lessened by this bill, was more considered than the interest of the nation itself. Several clauses, how beneficial soever to the subject, which touched on their profit, were left out by the Commons." Still the Act "for the Amendment of the Law and the better advancement of Justice," as it now stands amongst the statutes of the realm, effected a very important improvement in the administration of justice.

Lord Somers is said to have had a chief hand in projecting the scheme of the Union with Scotland; and in discussing and arranging the details of this great measure in the House of Lords, he appears to have been one of the most frequent and distinguished speakers, though he was then labouring under great bodily infirmity.

In the year 1708, on occasion of the temporary return of the Whigs to power, Lord Somers again formed part of the administration and filled the office of President of the Council. But the powers of his mind were at this time much enfeebled by continual ill-health; and it was probably with feelings of satisfaction that the change of parties in 1710, by causing his dismissal from office, enabled him finally to retire into private life.

Of the mode in which the remaining period of his life was spent after his removal from public business, little is known. There is, however, no doubt that the concluding years of his existence were darkened by much sickness and some degree of mental alienation. On the accession of George I. he formally took his seat at the Council-Board; but a paralytic affection, which had destroyed his bodily health, had so impaired the faculties of his mind as to incapacitate him entirely for business. At intervals, however, when the pressure of disease was suspended, he appears to have recurred with strong interest to passing events in which the welfare of his country was involved. When the Septennial Bill was in progress, Lord Townshend called upon him: Lord Somers embraced him, congratulated him on the progress of the bill, and declared that "he thought it would be the greatest support possible to the liberty of the country." On a subsequent occasion, when informed by the same nobleman of the determination of George I. to adopt the advice of his ministry, by executing the full rigour of the law against Lord

Derwentwater, and the other unfortunate persons concerned in the Rebellion of 1715, he is said to have asked with great emotion, and shedding many tears, “ whether they meant to revive the proscriptions of Marius and Sylla ?”

He soon afterwards sunk into a state of total imbecility, from which, on the 26th of April, 1716, he was happily released by death.



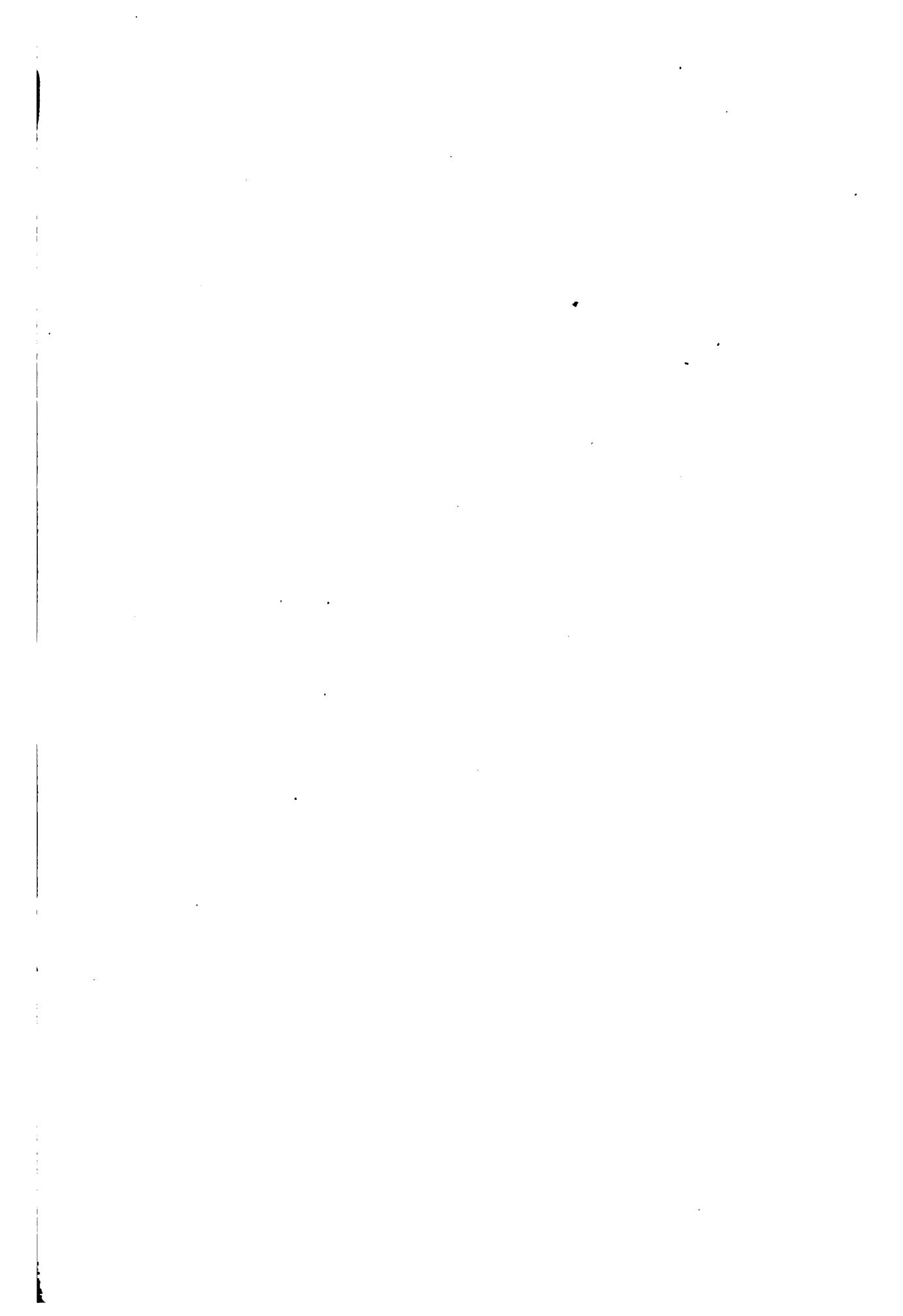
Presented by R.W. Johnson

JOHN SWINSON

*From an original outline entitled 'Notes
on the preparation of the Royal Coat of Arms'*

London, 1603. (See also the Society of Antiquaries, vol. viii, p. 100.)

Original Purchased by Edward King, M.A., F.R.S.







JOHN SMEATON will long be remembered as one of the most laborious and most successful civil engineers whom Britain has produced : a class to which our country is deeply indebted for its commercial greatness. He was born at Austhorpe, near Leeds, May 28, 1724. His father was an attorney, and intended to bring his son up to his own profession : but the latter finding, to use his own words, "that the law did not suit the bent of his genius," obtained his parent's consent that he should seek a more congenial employment.

From a very early age he had shown great fondness for mechanical occupations. "His playthings," it is said by one long acquainted with him, "were not the playthings of children, but the tools men work with ; and he appeared to have greater entertainment in seeing the men in the neighbourhood work, and asking them questions, than in any thing else." At the age of eighteen he was in the habit of forging iron and steel, and melting metal for his own use : and he possessed tools of every sort for working in wood, ivory, and metal. Some of these were of his own construction ; and among them an engine for rose-turning, and a lathe by which he had cut a perpetual screw, a thing little known at that time.

In the year 1750 he established himself in the Great Turnstile in Holborn, as a philosophical instrument-maker. While he followed this trade, he became known to the scientific circles by several ingenious inventions ; among which were a new kind of magnetic compass, and a machine for measuring a ship's way at sea. He was elected fellow of the Royal Society in 1753 ; and contributed several papers

to the Philosophical Transactions, one of which, entitled ‘An Experimental Enquiry concerning the natural powers of water and wind to turn mills and other machines, depending on a circular motion,’ obtained the gold medal in 1759.

In 1755 the Eddystone light-house was destroyed by fire. At this time Smeaton had never practised as an architect or engineer. But the proprietors, to use his own words, “considered that to reinstate it would require, not so much a person who had been merely bred, or who had rendered himself eminent in this or that given profession, but rather one who from natural genius had a turn for contrivance in the mechanical branches of science.” Thinking thus, they applied to the President of the Royal Society to recommend a fitting person, and he without hesitation named Smeaton. We shall speak hereafter of the difficulties which attended this work, and the method of its execution; the nature of it is familiar to every reader. Two light-houses had been destroyed within half a century: his own, after the lapse of seventy-three years, stands unimpaired;—a proud monument of the power of man to overcome the elements. This building was finished in 1759, and established his reputation as a civil engineer: but it was some time before he devoted his attention solely to practising in that capacity. In 1764 he was appointed one of the Receivers of the Greenwich Hospital Estates, and in the discharge of his duty, he suggested various improvements which were of material service to the property. He resigned that office about 1777, in consequence of the increase of his other business. In 1766 he was employed to furnish designs for new light-houses at the Spurn Head, at the mouth of the Humber, and after considerable delay, was appointed Surveyor of the Works in 1771. These were completed in April, 1777. Among other undertakings he repaired and improved the navigation of the river Calder; he built the bridge over the Tay, at Perth, and some others on the Highland road, north of Inverness; he laid out the line, and superintended the execution of a considerable portion of the great canal connecting the Forth and Clyde. His high reputation was shown shortly after the two centre arches of old London bridge had been thrown into one. The foundations of the piers were discovered to be damaged, and the danger of the bridge was esteemed so imminent that few persons would venture to pass over it. The opinions of the architects on the spot were deemed unsatisfactory; and Smeaton, being at the time in Yorkshire, was summoned by express, to say what should be done. He found that the increased volume of water passing through the centre arch had undermined the piers; and removed the danger by the simple

expedient, the success of which he had proved on the river Calder, of throwing in a large quantity of rough stone about them. The interstices of the heap soon are filled up by sand and mud, and the whole is consolidated almost into one mass, and forms a secure and lasting barrier. The best known of Smeaton's works, after the Eddystone light-house, is the magnificent pier and harbour of Ramsgate. This undertaking was commenced in 1749, and prosecuted for some time with very imperfect success. In 1774 Smeaton was called in ; and he continued to superintend the progress of the works till their completion in 1791. The harbour is now enclosed by two piers, the eastern nearly 2000, the western 1500 feet in length, and affords a safe and a much needed refuge to ships lying in the Downs, even of five and six hundred tons, which before, when driven from their anchors by stress of weather, were almost certain to be cast ashore and wrecked.

It would be vain to enumerate all the projects in which he was consulted, or the schemes which he executed. The variety and extent of his employments may be best estimated from his Reports, of which a complete collection has been published by the Society of Civil Engineers, in consequence of the liberality of Sir Joseph Banks, who had purchased, and presented them to the Society for this purpose. They fill three quarto volumes, and constitute a most interesting and valuable series of treatises on every branch of engineering ; as draining, bridge-building, making and improving canals and navigable rivers, planning docks and harbours, the improvement of mill-work, and the application of mechanical improvements to different manufactures. His papers in the Philosophical Transactions are published separately, and fill another quarto volume. They contain descriptions of those early inventions which we have mentioned, and of an improved air-pump, and a new hygrometer and pyrometer ; together with his treatise on Mill-work, and some papers which show that he was fond of the science of astronomy, and practically skilled in it.

His health began to decline about 1785, and he endeavoured to withdraw from business, and to devote his attention to publishing an account of his own inventions and works ; for as he often said, " he thought he could not render so much service to his country as by doing that." He succeeded in bringing out his elaborate account of the Eddystone Light-house, published in 1791. But he found it impossible to withdraw entirely from business : and it appears that over-exertion and anxiety did actually bring on an attack of paralysis, to which his family were constitutionally liable. He was taken ill at his residence at Austhorpe, in September, 1792, and died October 28, in the sixty-ninth

year of his age. He had long looked to this disease as the probable termination of his life, and felt some anxiety concerning the likelihood of out-living his faculties, and in his own words, of “lingering over the dregs after the spirit had evaporated.” This calamity was spared him : in the interval between his first attack and his death, his mind was unclouded, and he continued to take his usual interest in the occupations of his domestic circle. Sometimes only he would complain, with a smile, of his slowness of apprehension, and say, “ It cannot be otherwise : the shadow must lengthen as the sun goes down.”

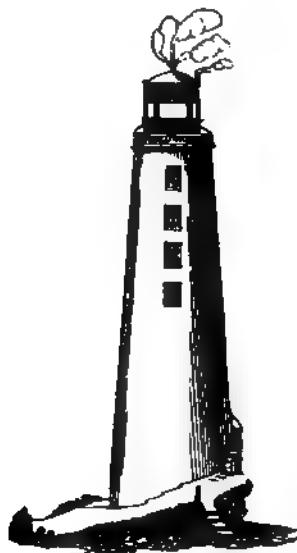
His character was marked by undeviating uprightness, industry, and moderation in pursuit of riches. His gains might have been far larger ; but he relinquished more than one appointment which brought in a considerable income, to devote his attention to other objects which he had more at heart ; and he declined the magnificent offers of Catharine II. of Russia, who would have bought his services at any price. His industry was unwearied, and the distribution of his hours and employments strictly laid down by rule. In his family and by his friends he was singularly beloved, though his demeanour sometimes appeared harsh to strangers. A brief, but very interesting and affectionate account of him, written by his daughter, is prefixed to his Reports, from which many of the anecdotes here related have been derived.

Of the many great undertakings in which Smeaton was engaged, the most original, and the most celebrated, is the Eddystone light-house. The reef of rocks known by the name of the Eddystone lies about nine miles and a half from the Ram Head, at the entrance of Plymouth Sound, exposed to the full swell of the Atlantic, which, with a very moderate gale, breaks upon it with the utmost fury. The situation, directly between the Lizard and Start points, makes it of the utmost importance to have a light-house on it ; and in 1698 Mr. Winstanley succeeded in completing one. This stood till 1703, but was entirely carried away in the memorable storm of November 26, in that year. It chanced, by a singular coincidence, that shortly before, on a doubt of the stability of the building being uttered, the architect expressed himself so entirely satisfied on that point, that “ he should only wish to be there in the greatest storm that ever blew under the face of the heavens.” He was gratified in his wish ; and perished with every person in the building. This building was chiefly, if not wholly of timber. In 1706 Mr. Rudyerd commenced a new light-house, partly of stone and partly of wood, which stood till 1755, when it was burnt down to the very rock. Warned by this accident, Smeaton

resolved that his should be entirely of stone. He spent much time in considering the best methods of grafting his work securely on the solid rock, and giving it the form best suited to secure stability; and one of the most interesting parts of his interesting account, is that in which he narrates how he was led to choose the shape which he adopted, by considering the means employed by nature to produce stability in her works. The building is modelled on the trunk of an oak, which spreads out in a sweeping curve near the roots, so as to give breadth and strength to its base, diminishes as it rises, and again swells out as it approaches to the bushy head, to give room for the strong insertion of the principal boughs. The latter is represented by a curved cornice, the effect of which is to throw off the heavy seas, which being suddenly checked fly up, it is said, from fifty to a hundred feet above the very top of the building, and thus to prevent their striking the lantern, even when they seem entirely to enclose it. The efficacy of this construction is such, that after a storm and spring tide of unequalled violence in 1762, in which the greatest fears were entertained at Plymouth for the safety of the light-house, the only article requisite to repair it was a pot of putty, to replace some that had been washed from the lantern.

To prepare a fit base for the reception of the column, the shelving rock was cut into six steps, which were filled up with masonry, firmly dovetailed, and pinned with oaken trenails to the living stone, so that the upper course presented a level circular surface. This part of the work was attended with the greatest difficulty; the rock being accessible only at low water, and in calm weather. The building is faced with the Cornish granite, called in the country, moorstone; a material selected on account of its durability and hardness, which bids defiance to the depredations of marine animals, which have been known to do serious injury by perforating Portland stone when placed under water. The interior is built of Portland stone, which is more easily obtained in large blocks, and is less expensive in the working. It is an instructive lesson, not only to the young engineer, but to all persons, to see the diligence which Smeaton used to ascertain what kind of stone was best fitted for his purposes, and from what materials the firmest and most lasting cement could be obtained. He well knew that in novel and great undertakings no precaution can be deemed superfluous which may contribute to success; and that it is wrong to trust implicitly to common methods, even where experience has shown them to be sufficient in common cases. For the height of twelve feet from the rock the building is solid. Every course of masonry is composed of stones firmly jointed and dovetailed into each other, and secured to the course below by *joggles*, or solid plugs of stone, which being let into both, effectually resist the lateral pressure

of the waves, which tends to push off the upper from the under course. The interior, which is accessible by a moveable ladder, consists of four rooms, one over the other, surmounted by a glass lantern, in which the lights are placed. The height from the lowest point of the foundation to the floor of the lantern is seventy feet ; the height of the lantern is twenty-one feet more. The building was commenced August 3, 1756, and finished October 8, 1759 ; and having braved uninjured the storms of seventy-three winters, is likely long to remain a monument almost as elegant, and far more useful, than the most splendid column ever raised to commemorate imperial victories. Its erection forms an era in the history of light-houses, a subject of great importance to a maritime nation. It came perfect from the mind of the artist ; and has left nothing to be added or improved. After such an example no accessible rock can be considered impracticable : and in the more recent erection of a light-house on the dangerous Bell-rock, lying off the coast of Forfarshire, between the Frith of Tay and the Frith of Forth, which is built exactly in the same manner, and almost on the same model, we see the best proof of the value of an impulse, such as was given to this subject by Smeaton.

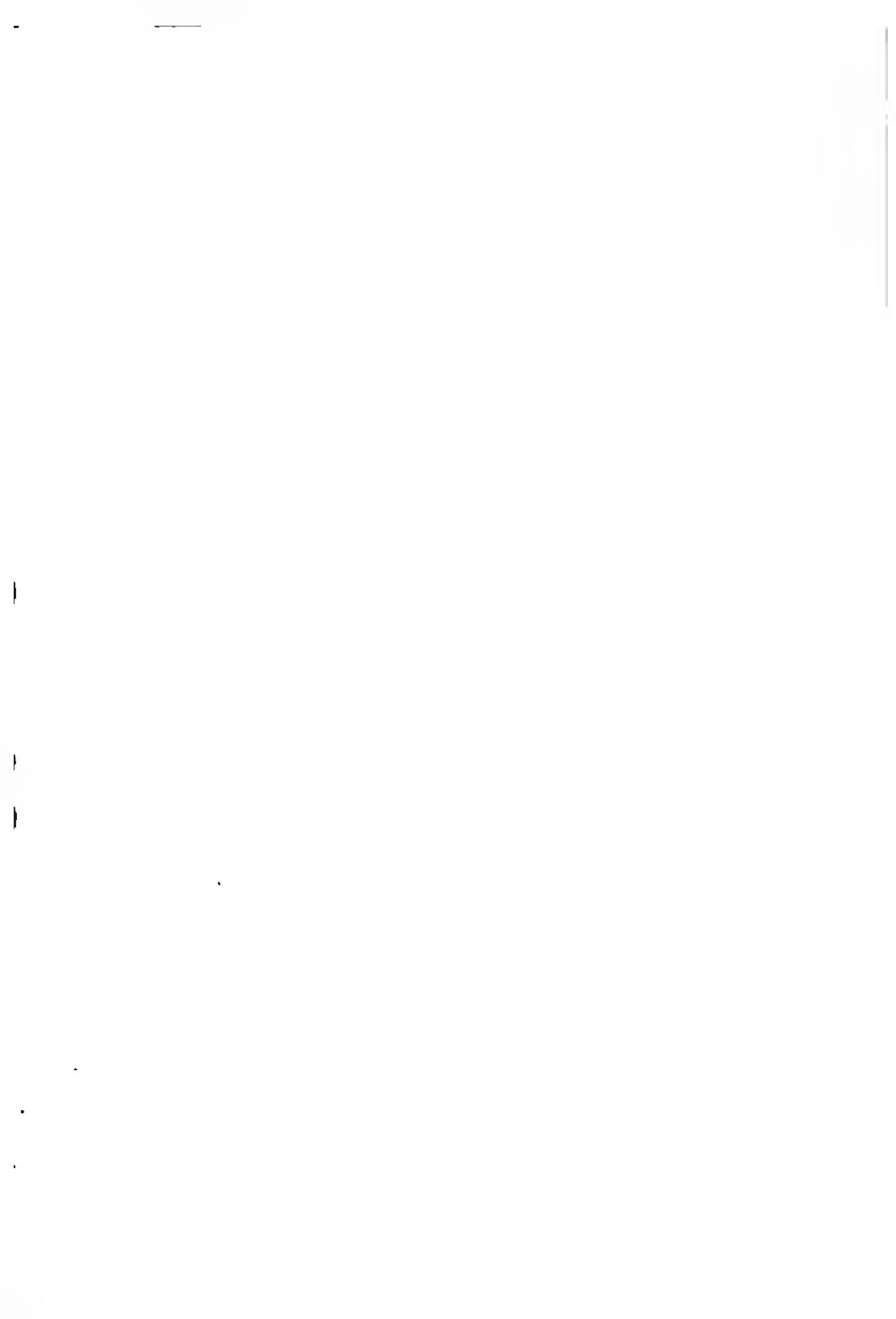


(1)

(2)

(3)

Light-houses of (1) Winstanley, (2) Smeaton, and (3) Radyr.



Properties and the disturbance of air

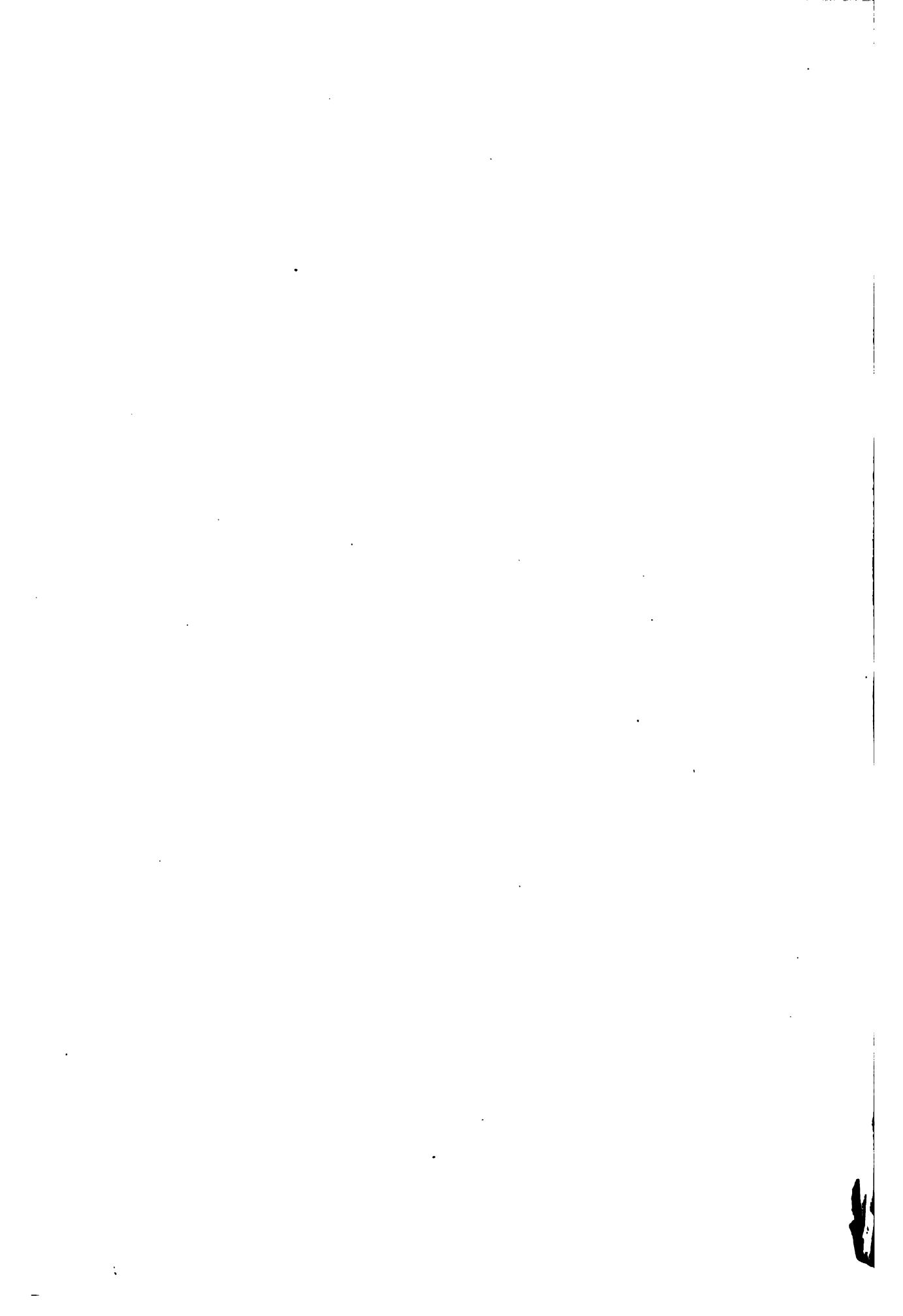
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from an original where by "summarised in the
collection of the Institute of France

• By 1910, it had been exhibited in the exhibition of British Art in New York.

Fig. 1. Effect of Martin's method on Watt factor.





BUFFON is reported to have said—and the vanity which was his predominant foible may have given some colour to the assertion—"I know but five great geniuses, Newton, Bacon, Leibnitz, Montesquieu, and myself." Probably no author ever received from his contemporaries so many excitements to such an exhibition of presumption and self-consequence. Lewis XV. conferred upon him a title of nobility; the Empress of Russia was his correspondent; Prince Henry of Prussia addressed him in the language of the most exaggerated compliment; and his statue was set up during his life-time in the cabinet of Lewis XVI., with such an inscription as is rarely bestowed even upon the most illustrious of past ages*. After the lapse of half a century we may examine the personal character, and the literary merits, of this celebrated man with a more sober judgment.

The history of Buffon is singularly barren of incident. At an early age he devoted himself to those studies of natural history which have rendered his name so famous; and at eighty years old he was still labouring at the completion of the great plan to which he had dedicated his life.

George Lewis le Clerc Buffon was born at Montbar, in Burgundy, on the 7th September, 1707. His father, Benjamin le Clerc, was a man of fortune, who could afford to bestow the most careful education upon his children, and leave them unfettered in the choice of an occupation. The young Buffon had formed an acquaintance at Dijon with an Englishman of his own age, the Duke of Kingston. The tutor of this nobleman was, fortunately, an accomplished student of the physical sciences; and he gave a powerful impulse to the talents of Buffon, by leading them forward in their natural direction. Without the assistance of this judicious friend, the inclination of his mind towards honourable and useful exertion might have been suppressed by the temptations which too easily beset those who have an ample command

* Majestali naturae par ingenium.

of the goods of fortune. It was not so with Buffon. Although he succeeded, at the age of twenty-one, to the estate of his mother, which produced him an annual income of 12,000*l.*, he devoted himself with unremitting assiduity to the acquisition of knowledge. Having travelled in Italy, and resided some little time in England, he returned to his own country, to dedicate himself to the constant labours of a man of letters. His first productions were translations of two English works of very different character—‘Hales’ Vegetable Statics,’ and ‘Newton’s Fluxions;’ and, following up the pursuits for which he exhibited his love in these translations, he carried on a series of experiments on the strength of timber, and constructed a burning mirror, in imitation of that of Archimedes.

The devotion to science which Buffon had thus manifested marked him out for an appointment which determined the course of his future life. His friend, Du Fay, who was the Intendant of the ‘*Jardin du Roi*’ (now called the ‘*Jardin des Plantes*’), on his death-bed recommended Buffon as the person best calculated to give a right direction to this establishment for the cultivation of natural history. Buffon seized upon the opportunities which this appointment afforded him of prosecuting his favourite studies, with that energetic perseverance for which he was remarkable. He saw that natural history had to be written in a manner that might render it the most attractive species of knowledge; and that philosophical views, and eloquent descriptions, might supersede the dry nomenclatures, and the loose, contradictory, and too-often fabulous narratives which resulted from the crude labours of ill-informed compilers. To carry forward his favourite object, it was necessary that the museum, over which he had now the control, should be put in order and rendered more complete. He obtained from the government considerable funds for the erection of proper buildings; and the galleries of the ‘*Jardin des Plantes*,’ which now hold the fine collection of mammals and birds, were raised under his superintendence. Possessing, therefore, the most complete means which Europe afforded, he applied himself to the great task of describing the animal, vegetable, and mineral kingdoms of nature. A large portion of this immense undertaking was left unperformed, although, to use his own words, he laboured fifty years at his desk; and much of what he accomplished was greatly diminished in value by his determination to see natural objects only through the clouded medium of his own theories. But, nevertheless, he has produced a work which, with all its faults, is an extraordinary monument of genius and industry, and which will long entitle him to the gratitude of mankind. “We read Buffon,” says Condorcet, “to be interested as well

as instructed. He will continue to excite a useful enthusiasm for the natural sciences ; and the world will long be indebted to him for the pleasures with which a young mind for the first time looks into nature and the consolations with which a soul weary of the storms of life reposes upon the sight of the immensity of beings peaceably submitted to necessary and eternal laws."

Buffon was in some particulars unqualified for the laborious duty he had undertaken. He delighted to indulge in broad and general views, and to permit his imagination to luxuriate in striking descriptions. But he had neither the patience, nor the love of accuracy, which would have carried him into those minute details which give to natural history its highest value. He, however, had the merit and the good fortune, in the early stages of his undertaking, to associate himself with a fellow-labourer who possessed those qualities in which he was deficient. The first fifteen volumes of '*L'Histoire Naturelle*,' which treat of the theory of the earth, the nature of animals, and the history of man and viviparous quadrupeds, were published between 1749 and 1767, as the joint work of Buffon and Daubenton. The general theories, the descriptions of the phenomena of nature, and the pictures of the habits of animals, were by Buffon. Daubenton confined himself to the precise delineation of their physical character, both in their external forms and their anatomy. But Daubenton refused to continue his assistance in the 'History of Birds ;' for Buffon, unwilling that the fame which he had acquired should be partaken by one whom he considered only as a humble and subordinate labourer, allowed an edition of the History of Quadrupeds to be published, of which the descriptive and anatomical parts had been greatly abridged. In the History of Birds, therefore, Buffon had to seek for other associates ; and the form of the work was greatly changed from that of the previous volumes. The particular descriptions are here very meagre, and anatomical details are almost entirely excluded. In some of the volumes, Buffon was assisted by Guéneau de Montbeillard, who, instead of endeavouring to attain the accuracy of Daubenton, affected to imitate the style of his employer. To the three last volumes of the Birds the Abbé Bexon lent his aid. The nine volumes of Birds appeared between 1770 and 1783. Buffon published alone his 'History of Minerals,' which appeared in five volumes, between 1783 and 1788. Seven volumes of Supplements complete the Natural History. The first appeared in 1773 ; the last was not published till the year after its author's death, in 1789. The fifth volume of these Supplements is a distinct work, the Epochs of Nature*.

* The best edition of the works of Buffon is the first, of 38 vols. 4to.

The study of natural history, and the composition of his great work, occupied the mind of Buffon from his first appointment as Intendant of the '*Jardin du Roi*,' to within a few days of his death. In the prosecution of the plan he had laid down, he never permitted the slightest interruption. Pleasure and indolence had their attractions;—but they never held him for many hours from his favourite pursuits. Buffon spent the greater part of his time at Montbar, where, during some years, his friend Daubenton also resided. It was here that Buffon composed nearly the whole of his works. Many interesting details have been preserved of his habits of life, and his mode of composition. He was, like all men who have accomplished great literary undertakings, a severe economist of his time. The employment of every day was fixed with the greatest exactness. He used almost invariably to rise at five o'clock, compelling his man-servant to drag him out of bed whenever he was unwilling to get up. "I owe to poor Joseph," he used to say, "ten or twelve volumes of my works." At the end of his garden was a pavilion which served him as a study. Here he was seated for many hours of every day, in an old leatherne chair, before a table of black birch, with his papers arranged in a large walnut-tree *escriatoire*. Before he began to write he was accustomed to meditate for a long time upon his subject. Composition was to him a real delight; and he used to declare that he had spent twelve or fourteen hours successively at his desk, continuing to the last in a state of pleasure. His endeavours to obtain the utmost correctness of expression furnished a remarkable proof of the persevering quality of his mind. He composed, and copied, and read his works to friends, and re-copied, till he was entirely satisfied. It is said that he made eleven transcripts of the Epochs of Nature. In his domestic habits there was little to admire in the character of Buffon. His conversation was trifling and licentious, and the grossness which too often discloses itself in his writings was ill-concealed in his own conduct. He paid the most minute attention to dress, and delighted in walking to church to exhibit his finery to his wondering neighbours. Although he was entirely devoid of religious principle, and constantly endeavoured in his writings to throw discredit upon the belief of a great First Cause, he regularly attended high mass, received the communion, and distributed alms to pious beggars. In his whole character there appears a total absence of that simplicity which is the distinguishing attribute of men of the very highest genius.

The literary glory of Buffon, although surpassed, or even equalled, during his life, by none of his contemporaries, with the exception per-

haps of Voltaire and Rousseau, has not increased, and is perhaps materially diminished, after having been tried by the opinions of half a century. In literature, as well as in politics, as we have learnt to attach a greater value to accurate facts, have we become less captivated by the force of eloquence alone. Buffon gave an extraordinary impulse to the love of natural history, by surrounding its details with splendid images, and escaping from its rigid investigations by bold and dazzling theories. He rejected classification ; and took no pains to distinguish by precise names the objects which he described, because such accuracy would have impeded the progress of his magnificent generalizations. Without classification, and an accurate nomenclature, natural history is a mere chaos. Buffon saw the productions of nature only in masses. He made no endeavour to delineate with perfect accuracy any individual of that immense body, nor to trace the relations of an individual to all the various forms of being by which it is surrounded. Although he was a profound admirer of Newton, and classed Bacon amongst the most illustrious of men, he constantly deviated from the principle of that philosophy upon which all modern discovery has been founded. He carried onward his hypotheses with little calculation and less experiment. And yet, although they are often misapplied, he has collected an astonishing number of facts ; and even many of his boldest generalities have been based upon a sufficient foundation of truth, to furnish important assistance to the investigations of more accurate inquirers. The persevering obliquity with which he turns away from the evidence of Design in the creation, to rest upon some vague notions of a self-creative power, both in animate and inanimate existence, is one of the most unpleasant features of his writings. How much higher services might Buffon have rendered to natural history had he been imbued not only with a spirit of accurate and comprehensive classification, but with a perception of the constant agency of a Creator, of both of which merits he had so admirable an example in our own Ray.

The style of Buffon, viewed as an elaborate work of art, and without regard to the great object of style, that of conveying thoughts in the clearest and simplest manner, is captivating from its sustained harmony and occasional grandeur. But it is a style of a past age. Even in his own day, it was a theme for ridicule with those who knew the real force of conciseness and simplicity. Voltaire described it as '*empoulé*' ; and when some one talked to him of '*L'Histoire Naturelle*', he drily replied, '*Pas si naturelle*.' But Buffon was not carried away by the mere love of fine writing. He knew his own power ; and, looking at the state of science in his day, he seized upon the instrument

which was best calculated to elevate him amongst his contemporaries. The very exaggerations of his style were perhaps necessary to render natural history at once attractive to all descriptions of people. Up to his time it had been a dry and repulsive study. He first clothed it with the picturesque and poetical ; threw a moral sentiment around its commonest details ; exhibited animals in connection with man, in his mightiest and most useful works ; and described the great phenomena of nature with a pomp of language which had never before been called to the service of philosophical investigation. The publication of his works carried the study of natural history out of the closets of the few, to become a source of delight and instruction to all men.

Buffon died at Paris on the 16th April, 1788, aged 81. He was married, in 1762, to Mademoiselle de St. Bélin ; and he left an only son, who succeeded to his title. This unfortunate young man perished on the scaffold, in 1795, almost one of the last victims of the fury of the revolution. When he ascended to the guillotine he exclaimed, with great composure, " My name is Buffon."

A succinct and clear memoir of Buffon, by Cuvier, in the *Biographie Universelle*, may be advantageously consulted. Nearly all the details of his private life are derived from a curious work by Renault de Séchelles, entitled *Voyage à Montbar*, which, like many other domestic histories of eminent men, has the disgrace of being founded upon a violation of the laws of hospitality.



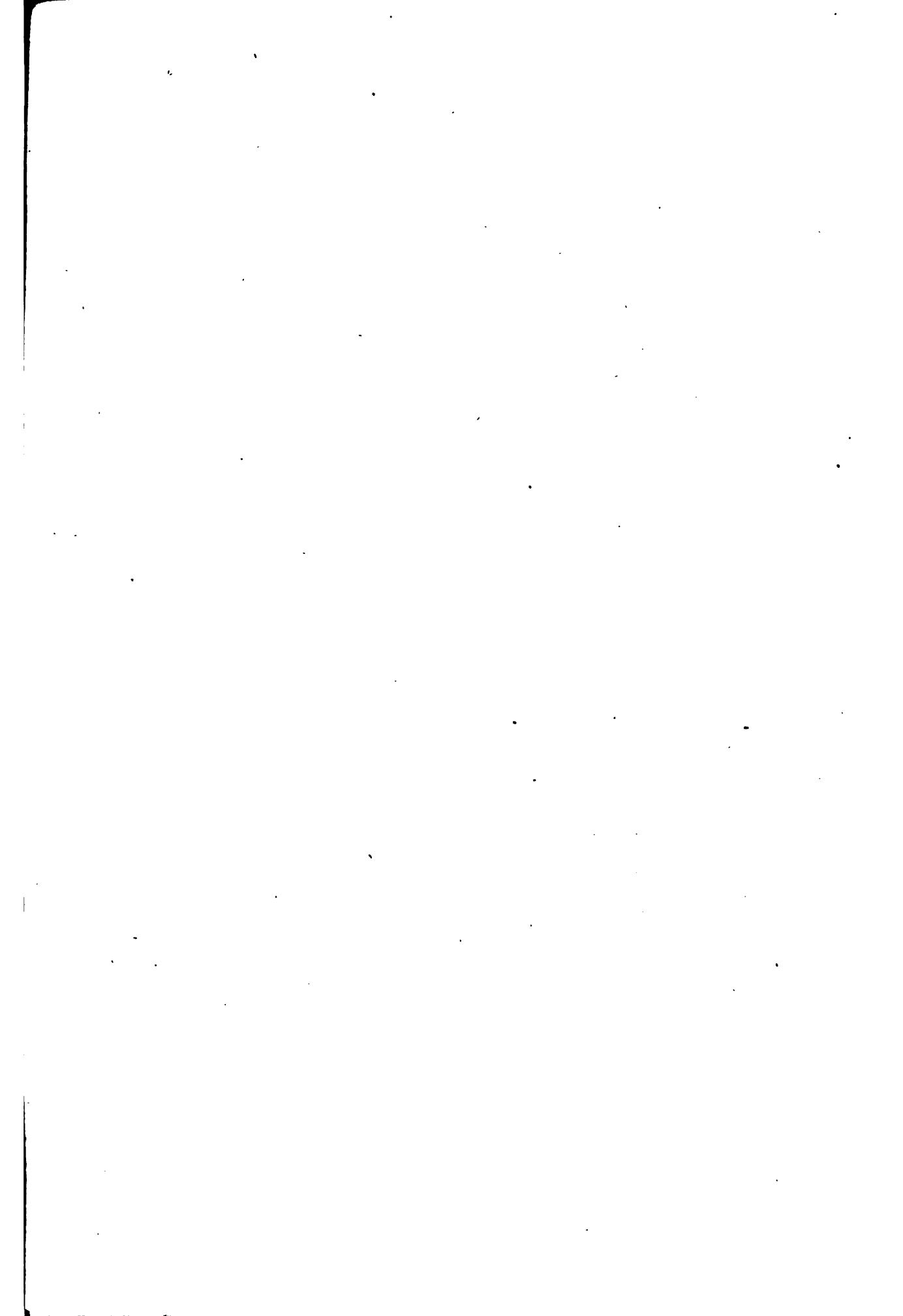
Engraved by D. Woodward

SIR THOMAS MORE

From an illuminated MS.
in the possession of Thomas Hobbes

and the acquisition of which is due to the Duke of Buccleuch

See - Dialogus de laerariae. B. Bruce Knight. Duke Maff. - 1





THIS great man was born in London, in the year 1480. His father was Sir John More, one of the Judges of the King's Bench, a gentleman of established reputation. He was early placed in the family of Cardinal Morton, Archbishop of Canterbury, and Lord Chancellor of England. The sons of the gentry were at this time sent into the families of the first nobility and leading statesmen, on an equivocal footing ; partly for the finishing of their education, and partly in a menial capacity. The Cardinal said more than once to the nobility who were dining with him, " This boy waiting at table, whosoever lives to see it, will one day prove a marvellous man." His eminent patron was highly delighted with that vivacity and wit which appeared in his childhood, and did not desert him on the scaffold. Plays were performed in the archiepiscopal household at Christmas. On these occasions young More would play the improvisatore, and introduce an extempore part of his own, more amusing to the spectators than all the rest of the performance. In due time Morton sent him to Oxford, where he heard the lectures of Linacer and Grocyn on the Greek and Latin languages. The epigrams and translations printed in his works evince his skill in both. After a regular course of rhetoric, logic, and philosophy, at Oxford, he removed to London, where he became a law student, first in New Inn, and afterwards in Lincoln's Inn. He gained considerable reputation by reading public lectures on Saint Augustine, *De Civitate Dei*, at Saint Lawrence's church in the Old Jewry. The most learned men in the city of London attended him ;

among the rest Grocyn, his lecturer in Greek at Oxford, and a writer against the doctrines of Wickliff. The object of More's prolixities was not so much to discuss points in theology, as to explain the precepts of moral philosophy, and clear up difficulties in history. For more than three years after this he was Law-reader at Furnival's Inn. He next removed to the Charter-House, where he lived in devotion and prayer ; and it is stated that from the age of twenty he wore a hair-shirt next his skin. He remained there about four years, without taking the vows, although he performed all the spiritual exercises of the society, and had a strong inclination to enter the priesthood. But his spiritual adviser, Dr. Colet, Dean of St. Paul's, recommended him to adopt a different course. On a visit to a gentleman of Essex, by name Colt, he was introduced to his three daughters, and became attached to the second, who was the handsomest of the family. But he bethought him that it would be both a grief and a scandal to the eldest to see her younger sister married before her. He therefore reconsidered his passion, and from motives of pity prevailed with himself to be in love with the elder, or at all events to marry her. Erasmus says that she was young and uneducated, for which her husband liked her the better, as being more capable of conforming to his own model of a wife. He had her instructed in literature, and especially in music.

He continued his study of the law at Lincoln's Inn, but resided in Bucklersbury after his marriage. His first wife lived about seven years. By her he had three daughters and one son; and we are informed by his son-in-law, Roper, that he brought them up with the most sedulous attention to their intellectual and moral improvement. It was a quaint exhortation of his, that they should take virtue and learning for their meat, and pleasure for their sauce.

In the latter part of King Henry the Seventh's time, and at a very early age, More distinguished himself in parliament. The King had demanded a subsidy for the marriage of his eldest daughter, who was to be the Scottish Queen. The demand was not complied with. On being told that his purpose had been frustrated by the opposition of a beardless boy, Henry was greatly incensed, and determined on revenge. He knew that the actual offender, not possessing anything, could not lose anything ; he therefore devised a groundless charge against the father, and confined him to the Tower till he had extorted a fine of £100 for his alleged offence. Fox, Bishop of Winchester, a privy counsellor, insidiously undertook to reinstate young More in the

King's favour: but the Bishop's Chaplain warned him not to listen to any such proposals; and gave a pithy reason for the advice, highly illustrative of Fox's real character. "To serve the King's purposes, my lord and master will not hesitate to consent to his own father's death." To avoid evil consequences, More determined to go abroad. With this view, he made himself master of the French language, and cultivated the liberal sciences, as astronomy, geometry, arithmetic, and music; he also made himself thoroughly acquainted with history: but in the mean time the King's death rendered it safe to remain in England, and he abandoned all thoughts of foreign travel.

Notwithstanding his practice at the bar, and his lectures, which were quoted by Lord Coke as undisputed authority, he found leisure for the pursuits of philosophy and polite literature. In 1516 he wrote his *Utopia*, the only one of his works which has commanded much of public attention in after times. In general they were chiefly of a polemic kind, in defence of a cause which even his abilities could not make good. But in this extraordinary work he allowed his powerful mind fair play, and considered both mankind and religion with the freedom of a true philosopher. He represents *Utopia* as one of those countries lately discovered in America, and the account of it is feigned to be given by a Portuguese, who sailed in company with the first discoverer of that part of the world. Under the character of this Portuguese he delivers his own opinions. His History of Richard III. was never finished, but it is inserted in Kennet's Complete History of England. Among his other eminent acquaintance, he was particularly attached to Erasmus. They had long corresponded before they were personally known to each other. Erasmus came to England for the purpose of seeing his friend; and it was contrived that they should meet at the Lord Mayor's table before they were introduced to each other. At dinner they engaged in argument. Erasmus felt the keenness of his antagonist's wit; and when hard pressed, exclaimed, "You are More, or nobody;" the reply was, "You are Erasmus, or the Devil."

Before More entered definitively into the service of Henry VIII. his learning, wisdom, and experience were held in such high estimation, that he was twice sent on important commercial embassies. His discretion in those employments made the King desirous of securing him for the service of the court; and he commissioned Wolsey, then Lord Chancellor, to engage him. But so little inclined was he to involve himself in political intrigues, that the King's wish was not at

the time accomplished. Soon after, More was retained as counsel for the Pope, for the purpose of reclaiming the forfeiture of a ship. His argument was so learned, and his conduct in the cause so judicious and upright, that the ship was restored. The King upon this insisted on having him in his service; and, as the first step to preferment, made him Master of the Requests, a Knight and Privy Councillor.

In 1520 he was made Treasurer of the Exchequer: he then bought a house by the river-side at Chelsea, where he had settled with his family. He had at that time buried his first wife and was married to a second. He continued in the King's service full twenty years, during which time his royal master conferred with him on various subjects, including astronomy, geometry, and divinity; and frequently consulted him on his private concerns. More's pleasant temper and witty conversation made him such a favourite at the palace, as almost to estrange him from his own family; and under these circumstances his peculiar humour manifested itself; for he so restrained the natural bias of his freedom and mirth as to render himself a less amusing companion, and at length to be seldom sent for but on occasions of business.

A more important circumstance gave More much consequence with the King. The latter was preparing his answer to Luther, and Sir Thomas assisted him in the controversy. While this was going on, the King one day came to dine with him; and after dinner walked with him in the garden with his arm round his neck. After Henry's departure, Mr. Roper, Sir Thomas's son-in-law, remarked on the King's familiarity, as exceeding even that used towards Cardinal Wolsey, with whom he had only once been seen to walk arm in arm. The answer of Sir Thomas was shrewd and almost prophetic. "I find his Grace my very good lord indeed, and I believe he doth as singularly favour me as any subject within this realm. However, Son Roper, I may tell thee, I have no cause to be proud thereof; for if my head would win him a castle in France it should not fail to go."

In 1523 he was chosen Speaker of the House of Commons, and displayed great intrepidity in the discharge of that office. Wolsey was afraid lest this parliament should refuse a great subsidy about to be demanded, and announced his intention of being present at the debate. He had previously expressed his indignation at the publicity given to the proceedings of the house, which he had compared to the gossip of an ale-house. Sir Thomas More therefore persuaded the members to

admit not only the Cardinal, but all his pomp ; his maces, poll-axes, crosses, hat, and great seal. The reason he assigned was, that should the like fault be imputed to them hereafter, they might be able to shift the blame on the shoulders of his Grace's attendants. The proposal of the subsidy was met with the negative of profound silence ; and the Speaker declared that " except every member could put into his one head all their several wits, he alone in so weighty a matter was unmeet to make his Grace answer." After the parliament had broken up, Wolsey expressed his displeasure against the Speaker in his own gallery at Whitehall ; but More, with his usual quiet humour, parried the attack by a ready compliment to the taste and splendour of the room in which they were conversing.

On the death of Sir Richard Wingfield, the King promoted Sir Thomas to the Chancellorship of the Duchy of Lancaster. At this time the see of Rome became vacant, and Wolsey aspired to the Papacy ; but Charles V. disappointed him, and procured the election of Cardinal Adrian. In revenge, Wolsey contrived to persuade Henry that Catharine was not his lawful wife, and endeavoured to turn his affections towards one of the French King's sisters. The case was referred to More, who was assisted by the most learned of the Privy Council ; and he managed, difficult as it must have been to do so, to extricate both himself and his colleagues from the dilemma. His conduct as ambassador at Cambray, where a treaty of peace was negotiated between the Emperor, France, and England, so confirmed the favour of his master towards him, that on the fall of the Cardinal he was made Lord Chancellor. The great seal was delivered to him on the 25th of October, 1530. This favour was the more extraordinary, as he was the first layman on whom it was bestowed : but it may reasonably be suspected that the private motive was to engage him in the approval of the meditated divorce. This he probably suspected, and entered on the office with a full knowledge of the danger to which it exposed him. He performed the duties of his function for nearly three years with exemplary diligence, great ability, and uncorrupted integrity. His resignation took place on the 16th May, 1533. His motive was supposed to be a regard to his own safety, as he was sensible that a confirmation of the divorce would be officially required from him, and he was too conscientious to comply with the mandate of power, against his own moral and legal convictions.

While Chancellor some of his injunctions were disapproved by the common law judges. He therefore invited them to dine with him in

the council chamber, and proved to them by professional arguments that their complaints were unfounded. He then proposed that they should themselves mitigate the rigour of the law by their own conscientious discretion ; in which case, he would grant no more injunctions. This they refused ; and the consequence was, that he continued that practice in equity which has come down to the present day.

It was through the intervention of his friend the Duke of Norfolk that he procured his discharge from the laborious, and under the circumstances of the time, the dangerous eminence of the chancellorship, which he quitted in honourable poverty. After the payment of his debts he had not the value of one hundred pounds in gold and silver, nor more than twenty marks a year in land. On this occasion his love of a jest did not desert him. While Chancellor, as soon as the church service was over, one of his train used to go to his lady's pew, and say, “ Madam, my Lord is gone ! ” On the first holiday after his train had been dismissed, he performed that ceremony himself, and by saying at the end of the service, “ Madam, my Lord is gone,” gave his wife the first intimation that he had surrendered the great seal.

He had resolved never again to engage in public business ; but the divorce, and still more the subsequent marriage with Anne Boleyn, which nothing could induce him to favour, with the King's alienation from the see of Rome, raised a storm over his head from which his voluntary seclusion at Chelsea, in study and devotion, could not shelter him. When tempting offers proved ineffectual to win him over to sanction Anne Boleyn's coronation by his high legal authority, threats and terrors were resorted to : his firmness was not to be shaken, but his ruin was determined, and ultimately accomplished. In the next parliament he, and his friend Fisher, Bishop of Rochester, were attainted of treason and misprision of treason for listening to the ravings of Elizabeth Barton, considered by the vulgar as the Holy Maid of Kent, and countenancing her treasonable practices. His innocence was so clearly established, that his name was erased from the bill ; and it was supposed to have been introduced into it only for the purpose of shaking his resolution touching the divorce and marriage. But though he had escaped this snare his firmness occasioned him to be devoted as a victim. Anne Boleyn took pains to exasperate the King against him, and when the Act of Supremacy was passed in 1534, the oath required by it was tendered to him. The refusal to take it, which his principles compelled him to give, was expressed in discreet and qualified terms ; he was nevertheless taken into the custody of the

Abbot of Westminster, and upon a second refusal four days after was committed prisoner to the Tower of London.

Our limits will not allow us to detail many particulars of his life while in confinement, marked as it was by firmness, resignation, and cheerfulness, resulting from a conscience, however much mistaken, yet void of intentional offence. His reputation and credit were very great in the kingdom, and much was supposed to depend on his conduct at this critical juncture. Archbishop Cranmer, therefore, urged every argument that could be devised to persuade him to compliance, and promises were profusely made to him from the King; but neither argument nor promises could prevail. We will give the last of these attempts to shake his determination, in the words of his son-in-law, Mr. Roper:—

“Mr. Rich, pretending friendly talk with him, among other things of a set course, said this unto him: ‘Forasmuch as is well known, Master More, that you are a man both wise and well learned, as well in the laws of the realm as otherwise, I pray you, therefore, sir, let me be so bold as of good-will to put unto you this case. Admit there were, sir, an act of parliament that the realm should take me for King; would not you, Mr. More, take me for King?’ ‘Yes, sir,’ quoth Sir Thomas More, ‘that would I.’ ‘I put the case further,’ quoth Mr. Rich, ‘that there were an act of parliament that all the realm should take me for Pope; would not you then, Master More, take me for Pope?’ ‘For answer, sir,’ quoth Sir Thomas More, ‘to your first case the parliament may well, Master Rich, meddle with the state of temporal princes; but to make answer to your other case, I will put you this case. Suppose the parliament would make a law that God should not be God; would you then, Master Rich, say that God were not God?’ ‘No, sir,’ quoth he, ‘that would I not; sith no parliament may make any such law.’ ‘No more,’ quoth Sir Thomas More, ‘could the parliament make the King supreme head of the Church.’ Upon whose only report was Sir Thomas indicted of high treason on the statute to deny the King to be supreme head of the Church, into which indictment were put these heinous words, *maliciously, traitorously, and diabolically.*’”

Sir Thomas More in his defence alleged many arguments to the discredit of Rich’s evidence, and in proof of the clearness of his own conscience; but all this was of no avail, and the jury found him guilty. When asked in the usual manner why judgment should not be passed against him, he argued against the indictment as grounded on an Act of Parliament repugnant to the laws of God and the Church, the government of which belonged to the see of Rome, and could not lawfully be

assumed by any temporal prince. The Lord Chancellor; however, and the other Commissioners gave judgment against him.

He remained in the Tower a week after his sentence, and during that time he was uniformly firm and composed, and even his peculiar vein of cheerfulness remained unimpaired. It accompanied him even to the scaffold, on going up to which, he said to the Lieutenant of the Tower, “I pray you, Master Lieutenant, see me safe up, and for my coming down let me shift for myself.” After his prayers were ended he turned to the executioner and said, with a cheerful countenance, “Pluck up thy spirits, man, and be not afraid to do thine office. My neck is very short, take heed, therefore, thou strike not awry for thine own credit’s sake.” Then laying his head upon the block, he bid the executioner stay till he had removed his beard, saying, “My beard has never committed any treason ;” and immediately the fatal blow was given. These witticisms have so repeatedly run the gauntlet through all the jest-books that it would hardly have been worth while to repeat them here, were it not for the purpose of introducing the comment of Mr. Addison on Sir Thomas’s behaviour on this solemn occasion. “What was only philosophy in this extraordinary man would be frenzy in one who does not resemble him as well in the cheerfulness of his temper as in the sanctity of his manners.”

He was executed on St. Thomas’s eve in the year 1555. The barbarous part of the sentence, so disgraceful to the Statute-book, was remitted. Lest serious-minded persons should suppose that his conduct on the scaffold was mere levity, it should be added that he addressed the people, desiring them to pray for him, and to bear witness that he was going to suffer death in and for the faith of the holy Catholic Church. The Emperor Charles V. said, on hearing of his execution, “Had we been master of such a servant, we would rather have lost the best city of our dominions than such a worthy councillor.”

No one was more capable of appreciating the character of Sir Thomas More than Erasmus, who represents him as more pure and white than the whitest snow, with such wit as England never had before, and was never likely to have again. He also says, that in theological discussions the most eminent divines were not unfrequently worsted by him; but he adds a wish that he had never meddled with the subject. Sir Thomas More was peculiarly happy in extempore speaking, the result of a well-stored and ready memory, suggesting without delay whatever the occasion required. Thuanus also mentions him with much respect, as a man of strict integrity and profound learning.

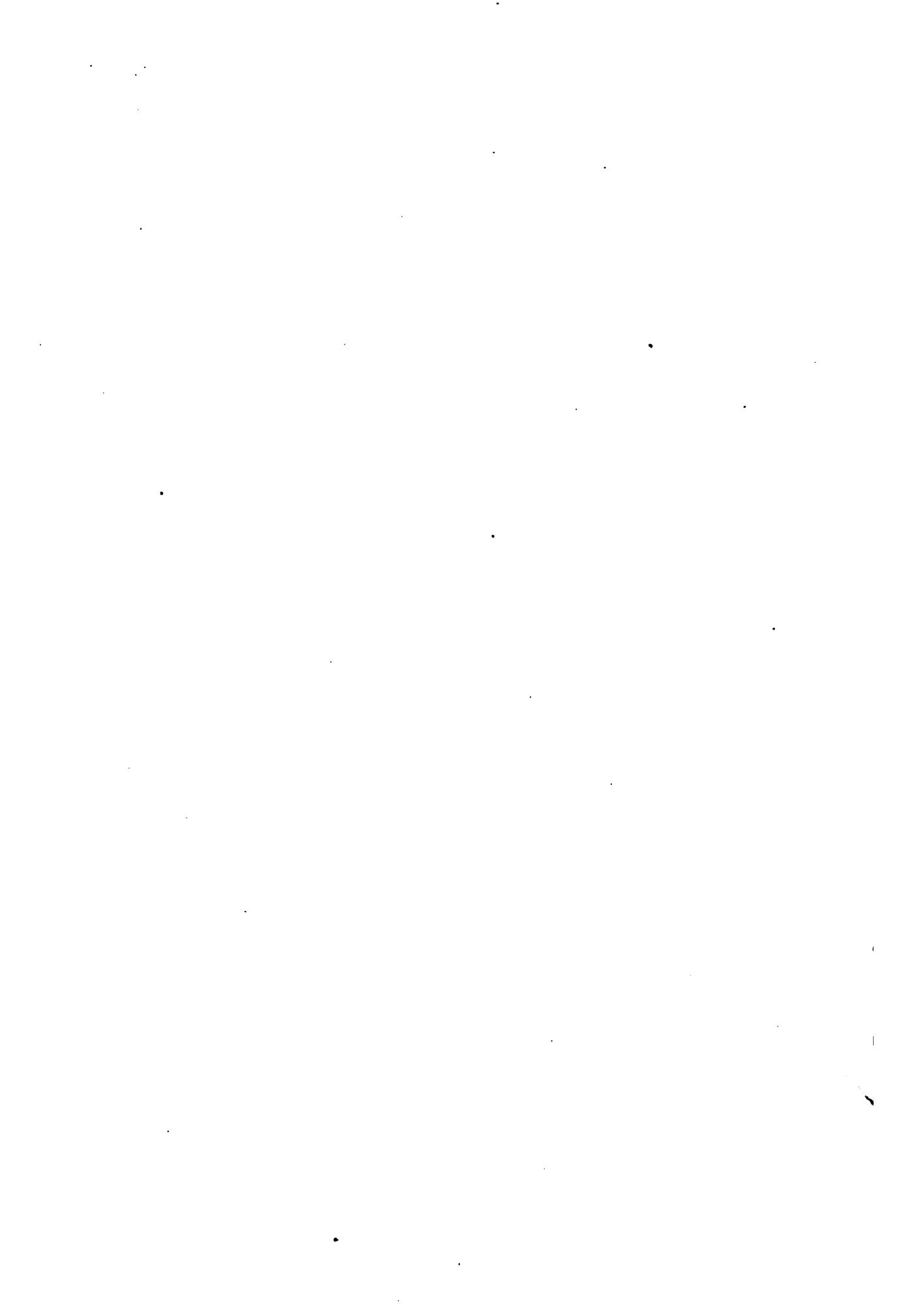
His life has been written by his son-in-law, Roper, and is the prin-

cipal source whence this narrative is taken. Erasmus has also been consulted, through whose epistolary works there is much information about his friend. There is also a life of him by Ferdinando Warner, LL.D., with a translation of his *Utopia*, in an octavo volume, published in 1758.

PIERRE SIMON LAPLACE was born at Beaumont en Auge, a small town of Normandy, not far from Honfleur, in March, 1749. His father was a small farmer of sufficient substance to give him the benefit of a learned education, for we are told* that the future philosopher gained his first distinctions in theology. It does not appear by what means his attention was turned to mathematical science, but he must have commenced that study when very young, as, on visiting Paris at the age of about eighteen, he attracted the notice of D'Alembert by his knowledge of the subject. He had previously taught mathematics in his native place; and, on visiting the metropolis, was furnished with letters of recommendation to several of the most distinguished men of the day. Finding, however, that D'Alembert took no notice of him on this account, he wrote that geometer a letter on the first principles of mechanics, which produced an immediate effect. D'Alembert sent for him the same day, and said, " You see, sir, how little I care for introductions, but you have no need of any. You have a better way of making yourself known, and you have a right to my assistance." Through the recommendation of D'Alembert, Laplace was in a few days named Professor of Mathematics in the Military School of Paris. From this moment he applied himself to the one great object of his life. It was not till the year 1799 that he was called to assume a public character. Bonaparte, then First Consul,

* A scanty account in the *Biographie des Contemporains*, and the Eloge read to the Institute by M. Fourier, form our only materials for the personal life of LAPLACE.





Engraved by F. Etienne

A PLACE

*From an original Picture by Wilson
in the possession of the Marquess of Dufferin*

Under the Superintendance of the Society for the Diffusion of Useful Knowledge

London Published by Charles Knight, Pall Mall East.



who was himself a tolerable mathematician, and always cultivated the friendship of men of science, made him Minister of the Interior; but very soon found his mistake in supposing that talents for philosophical investigation were necessarily accompanied by those of a statesman. He is reported to have expressed himself of Laplace in the following way:—"Géometre du premier rang, il ne tarda pas à se montrer administrateur plus que médiocre. Dès son premier travail, les consuls s'aperçurent qu'ils s'étoient trompés. Laplace ne saisissait aucune question sous son vrai point de vue. Il cherchait des subtilités partout, n'avait que des idées problématiques et portait aufin *l'esprit des infiniment petits* dans l'administration." Bonaparte removed him accordingly to the *Sénat Conservateur*, of which he was successively Vice-President and Chancellor. The latter office he received in 1813, about which time he was created Count. In 1814 he voted for the deposition of Napoleon, for which he has been charged with ingratitude and meanness. This is yet a party question; and the present generation need not be hasty in forming a decision which posterity may see reason to reverse. After the first restoration Laplace received the title of Marquis, and did not appear at the Court of Napoleon during the hundred days. He continued his usual pursuits until the year 1827, when he was seized with the disorder which terminated his life on the 5th of May, in the seventy-eighth year of his age. His last words were, "Ce que nous connaissons est peu de chose; ce que nous ignorons est immense." He has left a successor to his name and title, but none to his transcendent powers of investigation.

The name of Laplace is spread to the utmost limits of civilization, as the successor, almost the equal, of Newton. No one, however, who is acquainted with the discoveries of the two, will think there is so much common ground for comparison as is generally supposed. Those of Laplace are all essentially mathematical: whatever could be done by analysis he was sure to achieve. The labours of Newton, on the other hand, show a sagacity in conjecturing which would almost lead us to think that he laid the mathematics on one side, and used some faculty of perception denied to other men, to deduce these results which he afterwards condescended to put into a geometrical form, for the information of more common minds. In the Principia of Newton, the mathematics are not the instruments of discovery but of demonstration; and, though that work contains much which is new in a mathematical point of view, its principal merit is of quite

another character. The mind of Laplace was cast in a different mould ; and this perhaps is fortunate for science, for while we may safely assert that Laplace would never have been Newton had he been placed in similar circumstances, there is also reason to doubt whether a second Newton would have been better qualified to follow that particular path which was so successfully traversed by Laplace. We shall proceed to give such an idea of the labours of the latter as our limits will allow.

The solution of every mechanical problem, in which the acting forces were known, as in the motions of the solar system, had been reduced by D'Alembert and Lagrange to such a state that the difficulties were only mathematical ; that is, no farther advances could be made, except in pure analysis. We cannot expect the general reader to know what is meant by the words, *solution of a Differential Equation* ; but he may be made aware that there is a process so called, which, if it could be successfully and exactly performed in all cases, would give the key to every motion of the solar system, and render the determination of its present, and the prediction of its future state, a matter of mathematical certainty. Unfortunately, in the present state of analysis, such precision is unattainable ; and its place is supplied by slow and tedious approximations. These were begun by Newton, whose object being to establish the existence of universal gravitation, he was content to show that all the phenomena which might be expected to result, if that theory were true, did actually take place in the solar system. But here, owing to the comparatively imperfect state of mathematical analysis, he could do little more than indicate the cause of some of the principal irregularities of that system. His successors added considerably to the number of phenomena which were capable of explanation, and thereby increased the probability of the hypothesis. Lagrange, the great rival of Laplace, if we consider his discoveries, and his superior in the originality of his views, and the beauty of his analysis, added greatly to the fund ; but it was reserved for the latter to complete the system, and, extending his views beyond the point to which Newton directed his attention, to show that there is no marked phenomenon yet observed by astronomers, regarding the relative motions of the planets or their satellites, but what must necessarily follow, if the law of gravitation be true. We shall select a few instances of the success of his analysis. The average motions of Jupiter and Saturn had been observed to vary ; that of the former being accelerated, and of the latter retarded. This fact, which Euler had attempted in vain to

explain, was linked by Laplace to the general law, and shown to follow from it. A somewhat similar acceleration in the moon's mean motion was demonstrated, as we have observed more fully in the life of Halley, to arise from a small alteration in the form of the earth's orbit, caused by the attraction of the planets. A remarkable law attending the motions of the satellites of Jupiter, viz.—that the mean motion of the first satellite, together with double that of the second, is always very nearly equal to three times that of the third—was so far connected with the general law, that if, in the original formation of the system, that relation had been nearly kept, the mutual attractions, instead of altering it, would tend to bring it nearer the truth. We can here do no more than mention the analysis of the phenomena of the tides, one of the most important and most brilliant of Laplace's performances. Indeed there is no branch of Physical Astronomy, we might almost say of physics in general, which is not materially indebted to him. Superior to Euler in the power of conquering analytical difficulties, he is almost his equal in the universality of his labours.

The great work of Laplace is the 'Mécanique Céleste,' a collection of all that had been done by himself or others, concerning the theory of the universe. It is far above the reach even of the mathematical reader, unless he has given a degree of attention to the subject, which few, at least in our day, will exert. But Laplace was an elegant and clear-headed writer, as well as a profound analyst. He has left, we will not say for the common reader, but for those who possess the first elements of geometry, a compendium of the Mécanique Céleste, in the 'Système du Monde.' This work is free from mathematical details, and, were it his only production, would rank him high among French writers. We recommend it as the best exposition of the present state of our knowledge of the solar system.

But if it be said that Laplace was much indebted to the labours of Lagrange and others, for the methods which form the basis of the Mécanique Céleste, which is undoubtedly true, we have a splendid instance of what might have been expected from him under any circumstances, in the 'Théorie des Probabilités.' The field was here open, for though the leading principles of the science had been laid down, and many difficult problems solved, yet some method was still wanting by which sufficient approximation might be made to problems involving high numbers. In the theory of chances the great complexity of the operations required, soon renders the application of the clearest principles practically impossible; or, we should rather say, would have

GEORGE FREDERIC HANDEL, whom we will venture to call the greatest of musicians, considering the state in which he found his art, and the means at his command, was born at Halle, in the Duchy of Magdeburg, February 24, 1684. He was intended, almost from his cradle, for the profession of the civil law; but, at the early age of seven, he manifested so uncontrollable an inclination, and so decided a talent for the study of music, that his father, an eminent physician, wisely consented to change his destination, and suffered him to continue under the direction of a master those studies, which he had been secretly pursuing with no other guide than his own genius.

Friedrich Zachau, organist of the cathedral church of Halle, was the first and indeed the chief instructor of Handel. He discharged the duties of his office so well, that his pupil, when not nine years old, had become competent to officiate for his teacher, and had composed, it is said, many motets for the service of the church. A set of sonatas, written by him when only ten years old, was in the possession of George III., and probably forms part of the musical library of our present sovereign.

In 1703 Handel went to Hamburg, where the opera was then flourishing under the direction of Reinhard Keiser, a master of deserved celebrity, but whose gaiety and expensive habits often compelled him to absent himself from the theatre. On one of these occasions Handel was appointed to fill his place as conductor. This preference of a junior roused the jealousy of a fellow-performer, named Mattheson, to such a degree that a rencontre took place between the rivals in the street: and Handel was saved from a sword-thrust, which probably would have taken fatal effect, only by the interposition of a music-





London, 18. December

HANL L

*Clement Cullen to the Whig
to His Majesty at Hanover*

A full and complete narrative of the present political situation in the Kingdom.

London Published by Charles Knight, Pall Mall East.



score, which he carried buttoned up under his coat. Till this time he had occupied but a very subordinate situation in the orchestra, that of second *ripieno* violin; for from the period of his father's death he had depended wholly on his own exertions, nobly determining not to diminish his mother's rather straitened income by any demands on her for pecuniary assistance. But now an opportunity for making known his powers was arrived; for the continued absence of the conductor Keiser from his post induced the manager to employ Handel in setting to music a drama called *Almeria*. So great was the success of this piece, that it was performed thirty nights without interruption. The year following he composed *Florinda*; and soon after, *Nerone*, both of which were received in as favourable a manner as his first dramatic effort; but not one of these is to be found in the collection formed by George III., and they seem quite unknown to all writers on music, except by their titles.

The success of his operas at Hamburg produced a sum which enabled him to visit Italy. Florence was the first city in which he made any stay. He was there received in the kindest manner by the Grand Duke Giovanni Gaston de Medicis, and produced the opera of *Rodrigo* in 1709, for which he was presented with a hundred sequins, and a service of plate. Thence he proceeded to Venice, where he brought out *Agrippina*, which was received with acclamation, and performed twenty-seven nights successively. It seems that horns and other wind-instruments were in this opera first used in Italy as accompaniments to the voice. Here the charms of his music made an impression on the famous beauty and singer, Signora Vittoria, a lady particularly distinguished by the Grand Duke; but in this, as in every instance of a similar kind, Handel showed no disposition to avail himself of any partialities exhibited in his favour. His thoughts were nearly all absorbed by his art, and it is but just to conclude that he was also influenced by those sentiments of moral propriety which so distinctly marked his conduct through life. It is to be admitted, however, that he was too much inclined to indulge in the pleasures of the table.

On visiting Rome he was hospitably and kindly entertained by the Cardinal Ottoboni, a person of the most refined taste and princely magnificence. Besides his splendid collection of pictures and statues, he possessed a library of music of great extent, and kept in his service an excellent band of performers, which was under the direction of the celebrated Corelli. At one of the parties made by the Cardinal, Handel produced the overture to *Il Trionfo del Tempo*, which

was attempted by the band so unsuccessfully, that the composer, in his hasty manner, snatched the violin from Corelli, and played the most difficult passages with his own hand. The Italian, who was all modesty and meekness, ingenuously confessed that he did not understand the kind of music ; and, when Handel still appeared impatient, only said, “ Ma, caro Saxon, questa musica è nel stilo Francese, di ch’io non m’intendo”—(“ But, my dear Saxon, this music is in the French style, which I do not understand”). And so far Corelli was perfectly right ; Handel’s overtures are formed after the model of Lully, though, it is hardly necessary to add, he improved what he imitated. This anecdote indicates the vast superiority in point of execution possessed by the moderns. A learner of two years’ standing would now play the violin part of any of Handel’s overtures at first sight, without a fault.

At Rome Handel composed his *Trionfo del Tempo*, the words of which were written for him by the Cardinal Pamphilii, and a kind of *mystery*, or *oratorio*, *La Resurrezione*. The former he afterwards brought out in London, with English words by Dr. Morell, under the title of the *Triumph of Time and Truth*. From Rome he went to Naples, where he was treated with every mark of distinction. But he now resolved, notwithstanding the many attempts made to keep him in Italy, to return to Germany ; and in 1710 reached Hanover, where he found a generous patron in the Elector, who subsequently ascended the English throne as George I. Here he met the learned composer, Steffani, who, having arrived at a time of life when retirement becomes desirable, resigned his office of *Maestro di Capella* to the Elector, and Handel was appointed his successor, with a salary of 1500 crowns, upon condition that he would return to the court of Hanover at the termination of his travels.

Towards the end of 1710 Handel arrived in London. He was soon introduced at court, and honoured with marks of Queen Anne’s favour. Aaron Hill was then manager of the Italian opera, and immediately sketched a drama from Tasso’s *Jerusalem*, which Rossi worked into an opera under the name of *Rinaldo*, and Handel set to music. This was brought out in March, 1711 ; and it is stated in the preface that it was composed in a fortnight, a strong recommendation of a work to those who delight in the wonderful rather than in the excellent : but in fact there is nothing in this which could have put the composer to much expense either of time or thought. Handel undoubtedly wrote better operas than any of his contemporaries or predecessors ; but he was controlled by the habits and taste of the day, and knew by experience

that two or three good pieces were as much as the fashionable frequenters of the Italian theatre would listen to, in his time.

At the close of 1711 he returned to Hanover, but revisited London late in 1712; and shortly after was selected, not without many murmurs from English musicians, to compose a *Te Deum* and *Jubilate* on occasion of the peace of Utrecht. The Queen settled on him a pension of two hundred pounds as the reward of his labour,—and as he was solicited to write again for the Italian stage, he never thought of returning to his engagement at Hanover, till the accession of the Elector to the British throne reminded him of his neglect of his royal employer and patron. On the arrival of George I. in London, Handel wanted the courage to present himself at court; but his friend, Baron Kilmansegge, had the address to get him restored to royal favour. The pleasing *Water-Music*, performed during an excursion made up the river by the King, was the means by which the German baron brought about the reconciliation; and this was accompanied by an addition of two hundred pounds to the pension granted by Queen Anne.

From the year 1715 to 1720, Handel composed only three operas. The three first years of this period he passed at the Earl of Burlington's, where he was constantly in the habit of meeting Pope, who, though devoid of any taste for music, always spoke and wrote in a flattering manner of the German composer. The other two years he devoted to the Duke of Chandos, Pope's Timon; and at Cannons, the Duke's seat, he produced many of his anthems, which must be classed among the finest of his works, together with the greater number of his hautbois concertos, sonatas, lessons, and organ fugues.

A project was now formed by several of the English nobility for erecting the Italian theatre into an Academy of Music, and Handel was chosen as manager, with a condition that he should supply a certain number of operas. In pursuance of this, he went to Dresden to engage singers, and brought back with him several of great celebrity, Senesino among the number. His first opera under the new system was *Radamisto*, the success of which was astonishing. But there were at that time two Italian composers in London, Bononcini and Attilio, who till then had been attached to the opera-house, and were not without powerful supporters. These persons did not passively notice the ascendancy of Handel, and the insignificance into which they were in danger of falling; they persuaded several weak and some factious people of noble rank to espouse their cause, and to oppose the German intruder, as they called the new manager. Hence

arose those feuds to which Swift has given immortality by his well-known epigram ; and hence may be traced Handel's retirement from a scene of cabal, persecution, and loss. The final result of this, however, was fortunate, for it led to the production of his greatest works, his oratorios, which not only amply compensated him for all the injury which his fortune sustained in this contest, but raised him to a height of fame which he could never have gained by his Italian operas.

The two contending parties, wishing to appear reasonable, proposed something like terms of accommodation : these were, that an opera in three acts should be composed by the three rivals, one act by each, and that he who best succeeded should for ever after take the precedence. The drama chosen was *Muzio Scevola*, of which Bononcini set the first act, Handel the second, and Attilio the third. Handel's "won the cause," and Bononcini's was pronounced the next in merit. But, strange to say, though each no doubt strained his ability to the utmost in this struggle, not a single piece in the whole opera is known in the present day, or is, perhaps, to be found, except in the libraries of curious collectors.

This victory left Handel master of the field for some years, and the academy prospered. During this period he brought out about fifteen of his best operas. But the genius of discord must always have a seat in the temple of harmony, and a dispute between the German manager and the Italian soprano, Senesino, renewed former quarrels, broke up the academy, materially damaged the fortune of the great composer, and was the cause of infinite vexation to him during much of his future life.

Dr. Arbuthnot, always a staunch friend of Handel, now became his champion, and his ridicule had more weight with the sensible portion of the public than the futile arguments, if they deserve the name, advanced by the noble supporters of Senesino. But fashion and prejudice were, as usual, too strong for reason : a rival opera-house was opened in Lincoln's Inn Fields, and after having composed several new operas, comprising some of his best, and having sacrificed nearly the whole of his property and injured his health, in a spirited attempt to support the cause of the lyric stage against the presumption of singers, and the folly of their abettors, Handel was at last compelled to terminate his ineffectual labours, and stop his ruinous expenses, by abandoning the contest and the Italian opera together.

The sacred musical drama, or oratorio, was ultimately destined to repair his all but ruined fortune, and to establish his fame beyond the reach of cavil, and for ever. *Esther*, the words of which it

is said were the joint production of Pope and Arbuthnot, was composed for the Duke of Chandos in 1720. In 1732 it was performed ten nights at the Haymarket, or King's Theatre. Deborah was produced in 1733, and in the same year Athalia was brought out at Oxford. These three oratorios were performed at Covent Garden, in the Lent of 1734. Acis and Galatea, and Alexander's Feast, were brought out in 1735; Israel in Egypt, in 1738; L'Allegro ed il Penseroso, in 1739. Saul was produced at the theatre in Lincoln's Inn Fields in 1740. But up to this period his oratorios failed to reimburse him for the expenses incurred; and even the Messiah, that sublime and matchless work, was, as Dr. Burney, Sir John Hawkins, and Handel's first biographer, Mr. Mainwaring, all agree in stating, not only ill attended, but ill received, when first given to the public, in the capital of the empire, in 1741.

Such miscarriages, and a severe fit of illness, the supposed consequence of them, determined him to try his oratorios in the sister kingdom, where he hoped to be out of the reach of prejudice, envy, and hostility. Dublin was at that time noted for the gaiety and splendour of its court, and the opulence and spirit of its principal inhabitants. Handel, therefore, judged wisely in appealing to such a people. Pope in his Dunciad alludes to this part of his history, introducing a poor phantom as representative of the Italian opera, who thus instructs Dullness:—

But soon, ah soon, rebellion will commence,
If Music meanly borrows aid from sense :
Strong in new arms, lo ! giant Handel stands,
Like bold Briareus, with a hundred hands :
To stir, to rouse, to shake the soul he comes,
And Jove's own thunders follow Mars's drums.
Arrest him, empress, or you sleep no more.—
She heard—and drove him to th' Hibernian shore.

“On his arrival in Dublin,” we are told by Dr. Burney, in his Commemoration of Handel, “he, with equal judgment and humanity, began by performing the Messiah for the benefit of the city prison. This act of generosity and benevolence met with universal approbation, as well as his music, which was admirably performed.” He remained in Ireland about nine months, where his finances began to mend, an earnest, as it were, of the more favourable reception which he experienced on returning to London in 1742. He then recommenced his oratorios at Covent Garden; Sampson was the first performed. And now fortune seemed to wait on all his undertakings; and he took the tide at the flood. His last oratorio became most popular, and the Messiah was now received with universal admiration

and applause. Dr. Burney remarks, “ From that time to the present, this great work has been heard in all parts of the kingdom with increasing reverence and delight ; it has fed the hungry, clothed the naked, fostered the orphan,” and, he might have added, healed the sick. Influenced by the most disinterested motives of humanity, Handel resolved to perform his *Messiah* annually for the benefit of the Foundling Hospital, and, under his own direction and that of his successors, it added to the funds of that charity alone the sum of £10,300. How much it has produced to other benevolent institutions, it is impossible to calculate ; the amount must be enormous.

He continued his oratorios till almost the moment of his death, and derived considerable pecuniary advantage from them, though a considerable portion of the nobility persevered in their opposition to him. George II., however, was his steady patron, and constantly attended his performances, when they were abandoned by most of his court.

In the close of life, Handel had the misfortune to lose his sight, from an attack of *gutta serena*, in 1751. This evil for a time plunged him into deep despondency ; but when the event was no longer doubtful, an earnest and sincere sense of religion enabled him to bear his affliction with fortitude, and he not only continued to perform, but even to compose. For this purpose, he employed as his amanuensis Mr. John Christian Smith, a good musician, who furnished materials for a life of his employer and friend, and succeeded him in the management of the oratorios. “ To see him, however,” Dr. Burney feelingly observes, “ led to the organ after this calamity, at upwards of seventy years of age, and then conducted towards the audience to make his accustomed obeisance, was a sight so truly afflicting to persons of sensibility, as greatly diminished their pleasure in hearing him perform.”

His last appearance in public was on the 6th of April, 1759. He died that day week, on Good-Friday, thus realizing a hope which he expressed a very few days before his decease, when aware that his last hours were approaching. He was buried in Westminster Abbey ; the Dean, Dr. Pearce, Bishop of Rochester, assisted by all the officers of the choir, performed the ceremony. A fine monument, executed by Roubiliac, is placed in Poet’s Corner, above the spot where his mortal remains are deposited ; but a still more honourable tribute to his memory was paid in the year 1784, by the performances which took place under the roof which covers his dust. A century having then elapsed from the time of his birth, it was proposed that a Commemoration of Handel should take place. The management of it was intrusted to the directors of the ancient concert, and eight

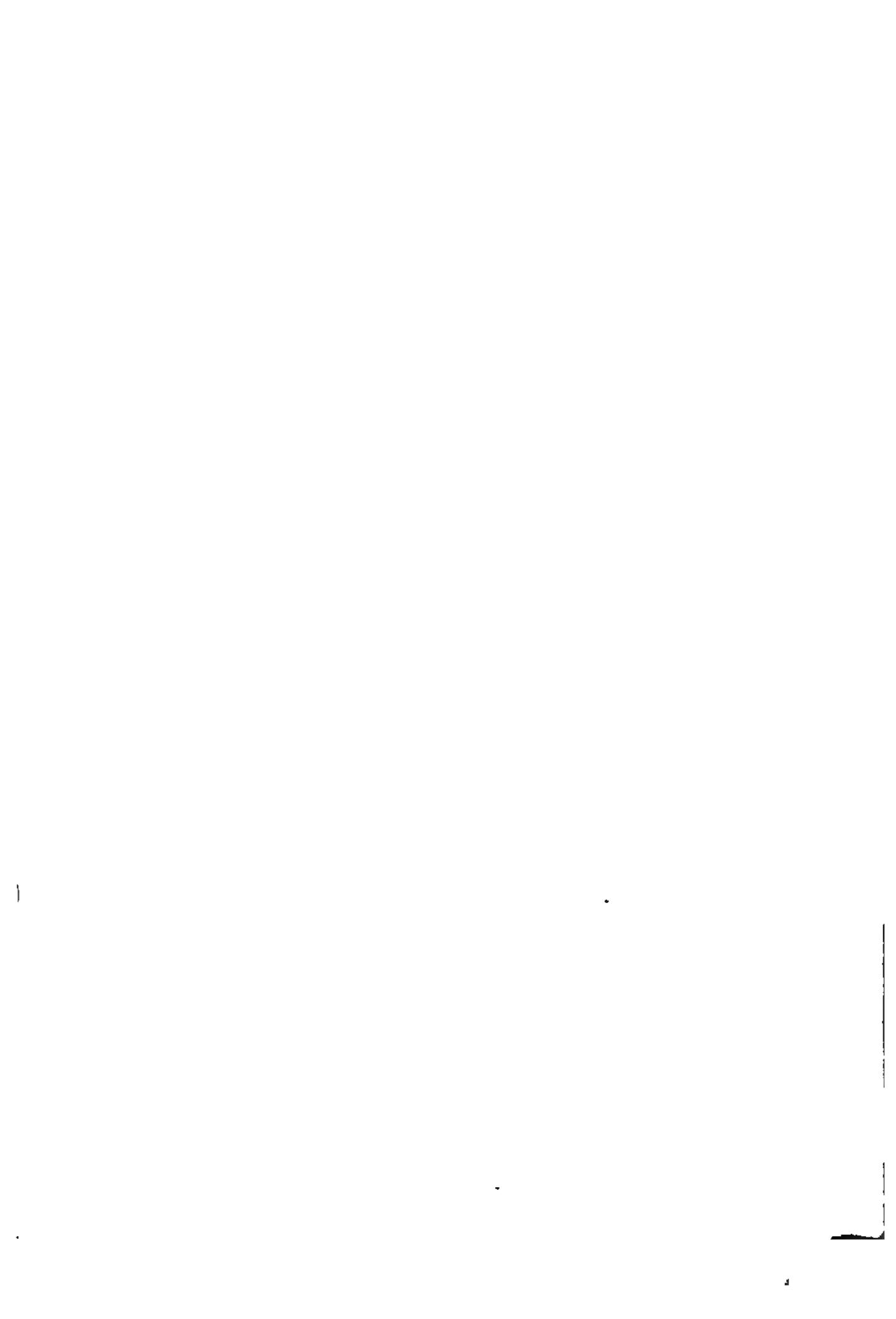
of the most distinguished members of the musical profession. The King, George III., zealously patronised the undertaking, and nearly all the upper classes of the kingdom seconded the royal views. A vocal and instrumental band of 525 persons was collected from all parts, for the purpose of performing in a manner never before even imagined, the choicest works of the master. The great aisle in Westminster Abbey was fitted up for the occasion, with boxes for the Royal Family, the Directors, the Bench of Bishops, and the Dean and Prebendaries of the Church; galleries were erected on each side, and a grand orchestra was built over the great west door, extending from within a few feet of the ground, to nearly half-way up the great window. There were four morning performances in the church: the tickets of admission were one guinea each; and the gross receipts (including an evening concert at the Pantheon) amounted to £12,736. The disbursements rather exceeded £6,000, and the profits were given to the Society for Decayed Musicians and the Westminster Hospital; £6,000 to the former, and £1,000 to the latter. Such was the success of this great enterprise, that similar performances, increasing each year in magnitude, took place annually till the period of the French Revolution, when the state of public affairs did not encourage their longer continuance.

As a composer, Handel was great in all styles—from the familiar and airy to the grand and sublime. His instinctive taste for melody, and the high value he set on it, are obvious in all his works; but he felt no less strongly the charms of harmony, in fulness and richness of which he far surpassed even the greatest musicians who preceded him. And had he been able to employ the variety of instruments now in use, some of which have been invented since his death, and to command that orchestral talent, which probably has had some share in stimulating the inventive faculty of modern composers, it is reasonable to suppose that the field of his conceptions would have expanded with the means at his command. Unrivalled in sublimity, he might then have anticipated the variety and brilliance of later masters.

Generally speaking, Handel set his words with deep feeling and strong sense. Now and then he certainly betrayed a wish to imitate by sounds what sounds are incapable of imitating; and occasionally attempted to express the meaning of an isolated word, without due reference to the context. And sometimes, though not often, his want of a complete knowledge of our language led him into errors of accentuation. But these defects, though great in little men, dwindle almost to nothing in this “giant of the art:” and every competent judge,

who contemplates the grandeur, beauty, science, variety, and number of Handel's productions, will feel for him that admiration which Haydn, and still more Mozart, was proud to avow, and be ready to exclaim in the words of Beethoven, "Handel is the unequalled master of all masters! Go, turn to him, and learn, with such scanty means, how to produce such effects!"





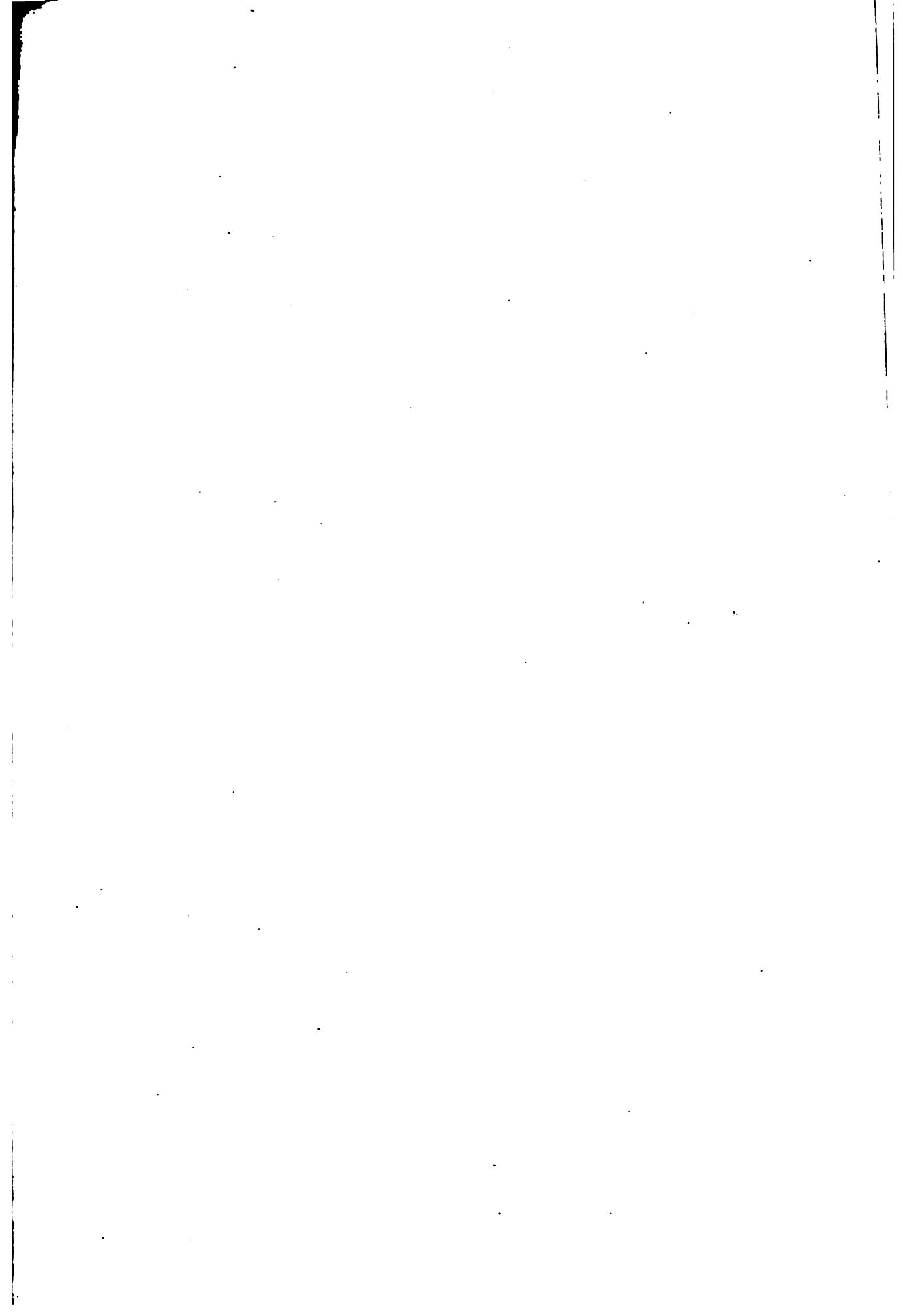
Edward H. Major

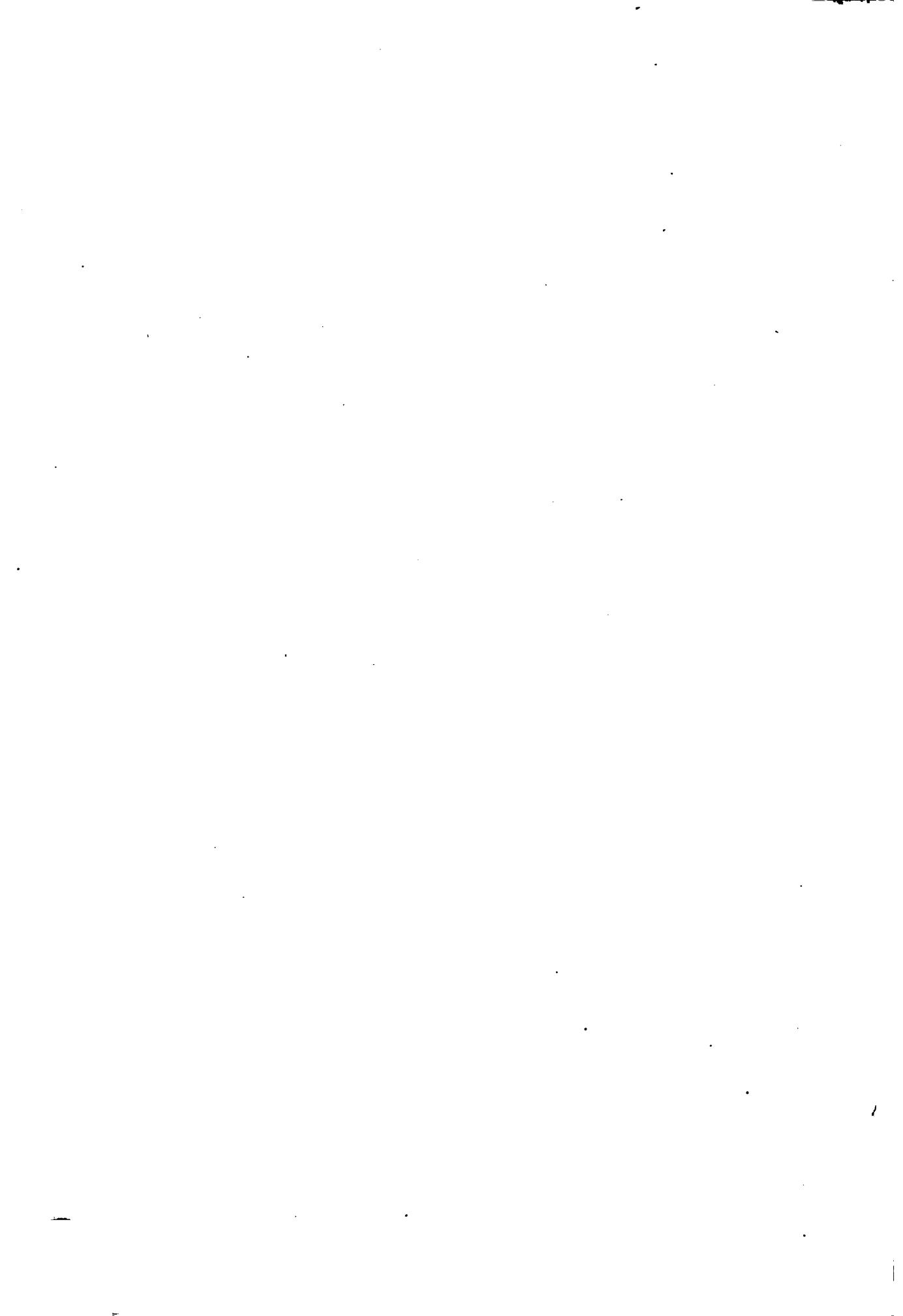
K. S. C. G.

*On the original plan by Major is handwritten
in the possession of W. L. Moore et al.*

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BLAISE PASCAL was born June 19, 1623, at Clermont, the capital of Auvergne, where his father, Stephen Pascal, held a high legal office. On the death of his wife in 1626, Stephen resigned his professional engagements, that he might devote himself entirely to the education of his family, which consisted only of Blaise, and of two daughters. With this view he removed to Paris.

The elder Pascal was a man of great moral worth, and of a highly cultivated mind. He was known as an active member of a small society of philosophers, to which the Academie Royale des Sciences, established in 1666, owed its origin. Though himself an ardent mathematician, he was in no haste to initiate his son in his own favourite pursuits; but having a notion, not very uncommon, that the cultivation of the exact sciences is unfriendly to a taste for general literature, he began with the study of languages; and notwithstanding many plain indications of the natural bent of his son's genius, he forbade him to meddle, even in thought, with the mathematics. Nature was too strong for parental authority. The boy having extracted from his father some hints as to the subject matter of geometry, went to work by himself, drawing circles and lines, or, as he called them in his ignorance of the received nomenclature, rounds and bars, and investigating and proving the properties of his various figures, till, without help of a book or oral instruction of any kind, he had advanced as far as the thirty-second proposition of the first book of Euclid. He had perceived that the three angles of a triangle are together equal to two right ones, and was searching for a satisfactory proof, when his father surprised him in his forbidden speculations.

The figures drawn on the walls of his bed-chamber told the tale, and a few questions proved that his head had been employed as well as his fingers. He was at this time twelve years old. All attempts at restriction were now abandoned. A copy of Euclid's Elements was put into his hands by his father himself, and Blaise became a confirmed geometrician. At sixteen he composed a treatise on the Conic Sections, which had sufficient merit to induce Descartes obstinately to attribute the authorship to the elder Pascal or Desargues.

Such was his progress in a study which was admitted only as the amusement of his idle hours. His labours under his father's direction were given to the ancient classics.

Some years after this, the elder Pascal had occasion to employ his son in making calculations for him. To facilitate his labour, Blaise Pascal, then in his nineteenth year, invented his famous arithmetical machine, which is said to have fully answered its purpose. He sent this machine with a letter to Christina, the celebrated Queen of Sweden. The possibility of rendering such inventions generally useful has been stoutly disputed since the days of Pascal. This question will soon perhaps be set at rest, if it may not be considered as already answered, by the scientific labours of an accomplished mathematician of our own time and country.

It should be remarked that Pascal, whilst he regarded geometry as affording the highest exercise of the powers of the human mind, held in very low estimation the importance of its practical results. Hence his speculations were irregularly turned to various unconnected subjects, as his curiosity might happen to be excited by them. The late creation of a sound system of experimental philosophy by Galileo had roused an irresistible spirit of inquiry, which was every day exhibiting new marvels; but time was wanted to develope the valuable fruits of its discoveries, which have since connected the most abstruse speculations of the philosopher with the affairs of common life.

There is no doubt that his studious hours produced much that has been lost to the world; but many proofs remain of his persevering activity in the course which he had chosen. Amongst them may be mentioned his Arithmetical Triangle, with the treatises arising out of it, and his investigations of certain problems relating to the curve called by mathematicians the Cycloid, to which he turned his mind, towards the close of his life, to divert his thoughts in a season of severe suffering. For the solution of these problems, according to the fashion of the times, he publicly offered a prize, for which La Loubère and our own countryman Wallis contended. It was adjudged that neither had ful-

filled the proposed conditions ; and Pascal published his own solutions, which raised the admiration of the scientific world. The Arithmetical Triangle owed its existence to questions proposed to him by a friend respecting the calculation of probabilities in games of chance. Under this name is denoted a peculiar arrangement of numbers in certain proportions, from which the answers to various questions of chances, the involution of binomials, and other algebraical problems, may be readily obtained. This invention led him to inquire further into the theory of chances ; and he may be considered as one of the founders of that branch of analysis, which has grown into such importance in the hands of La Place.

His fame as a man of science does not rest solely on his labours in geometry. As an experimentalist he has earned no vulgar celebrity. He was a young man when the interesting discoveries in pneumatics were working a grand revolution in natural philosophy. The experiments of Torricelli had proved, what his great master Galileo had conjectured, the weight and pressure of the air, and had given a rude shock to the old doctrine of the schools that " Nature abhors a vacuum ;" but many still clung fondly to the old way, and when pressed with the fact that fluids rise in an exhausted tube to a certain height, and will rise no higher, though with a vacuum above them, still asserted that the fluids rose because Nature abhors a vacuum, but qualified their assertion with an admission that she had some moderation in her abhorrence. Having satisfied himself by his own experiments of the truth of Torricelli's theory, Pascal with his usual sagacity devised the means of satisfying all who were capable of being convinced. He reasoned that if, according to the new theory, founded on the experiments made with mercury, the weight and general pressure of the air forced up the mercury in the tube, the height of the mercury would be in proportion to the height of the column of incumbent air ; in other words, that the mercury would be lower at the top of a mountain than at the bottom of it : on the other hand, that if the old answer were the right one, no difference would appear from the change of situation. Accordingly, he directed the experiment to be made on the Puy de Dôme, a lofty mountain in Auvergne, and the height of the barometer at the top and bottom of the mountain being taken at the same moment, a difference of more than three inches was observed. This set the question at rest for ever. The particular notice which we have taken of this celebrated experiment, made in his twenty-fifth year, may be justified by the importance attached to it by no mean authority. Sir W. Herschell observes, in his Discourse on

the Study of Natural Philosophy, page 230, that “ it tended perhaps more powerfully than any thing which had previously been done in science to confirm in the minds of men that disposition to experimental verification which had scarcely yet taken full and secure root.”

Whatever may be the value of the fruits of Pascal’s genius, it should be remembered that they were all produced within the space of a life which did not number forty years, and that he was so miserably the victim of disease that from the time of boyhood he never passed a day without pain.

His health had probably been impaired by his earlier exertions ; but the intense mental labour expended on the arithmetical machine appears to have completely undermined his constitution, and to have laid the foundation of those acute bodily sufferings which cruelly afflicted him during the remainder of his life. His friends, with the hope of checking the evil, sought to withdraw him from his studies, and tempted him into various modes of relaxation. But the remedy was applied too late. The death of his father in 1651, and the retirement of his unmarried sister from the world to join the devout recluses of Port Royal-des-Champs, released him from all restraint. He sadly abused this liberty, until the frightful aggravation of his complaints obliged him to abandon altogether his scientific pursuits, and reluctantly to follow the advice of his physicians, to mix more freely in general society. He obtained some relief from medicine and change of habits ; but, in 1654, an accident both made his recovery hopeless, and destroyed the relish which he had begun to feel for social life. He was in his carriage on the Pont de Neuilly, at a part of the bridge which was unprotected by a parapet, when two of the horses became unruly, and plunged into the Seine. The traces broke, and Pascal was thus saved from instant death. He considered that he had received a providential warning of the uncertainty of life, and retired finally from the world, to make more earnest preparation for eternity. This accident gave the last shock to his already shattered nerves, and to a certain extent disordered his imagination. The image of his late danger was continually before him, and at times he fancied himself on the brink of a precipice. The evil probably was increased by the rigid seclusion to which from this time he condemned himself, and by the austereities which he inflicted on his exhausted frame. His powerful intellect survived the wreck of his constitution, and he gave ample proof to the last that its vigour was unimpaired.

In his religious opinions he agreed with the Jansenists, and, without being formally enrolled in their society, was on terms of intimate

friendship with those pious and learned members of the sect, who had established themselves in the wilds of Port Royal. His advocacy of their cause at a critical time was so important to his fame and to literature, that a few words may be allowed on the circumstances which occasioned it.

The Jansenists, though they earnestly deprecated the name of heretics, and were most fiercely opposed to the Huguenots and other Protestants, did in fact nearly approach in many points the reformed churches, and departed widely from the fashionable standard of orthodoxy in their own communion. They were in the first instance brought into collision with their great enemies the Jesuits by the opinions which they held on the subjects of grace and free-will. As the controversy proceeded, the points of difference between the contending parties became more marked and more numerous. The rigid system of morals taught and observed by the Jansenists, and the superior regard which they paid to personal holiness in comparison with ceremonial worship, appeared in advantageous contrast with the lax morality and formal religion of the Jesuits. Hence, though there was much that was repulsive in their discipline, and latterly, not a little that was exceptionable in their conduct, they could reckon in their ranks many of the most enlightened as well as the most pious Christians in France. It was natural that Pascal, who was early impressed with the deepest reverence for religion, should be attracted to a party which seemed at least to be in earnest, whilst others were asleep; and it is more a matter of regret than of surprise, that latterly, in his state of physical weakness and nervous excitement, he should have been partially warped from his sobriety by intercourse with men, whose Christian zeal was in too many instances disfigured by a visionary and enthusiastic spirit. The Papal Court at first dealt with them tenderly; for it was in truth no easy matter to condemn their founder Jansenius, without condemning its own great doctor the celebrated Augustin. But the vivacious doctors of the Sorbonne, on the publication of a letter by the Jansenist Arnauld, took fire, and by their eagerness kindled a flame that well nigh consumed their own church.

Whilst they were in deliberation on the misdoings of Arnauld, Pascal put forth under the name of Louis de Montalte the first of that series of letters to "a friend in the country"—à un provincial par un de ses amis—which, when afterwards collected, received by an absurd misnomer, the title of the Provincial Letters of Pascal. In these letters, after having exhibited in a light irresistibly ludicrous, the disputes of

the Sorbonne, he proceeds with the same weapon of ridicule, all powerful in his hand, to hold forth to derision and contempt the profligate casuistry of the Jesuits. For much of his matter he was undoubtedly indebted to his Jansenist friends, and it is commonly said that he was taught by them to reproach unfairly the whole body of Jesuits, with the faults of some obscure writers of their order. These writers, however, were at least well known to the Jesuits, their writings had gone through numerous editions with approbation, and had infused some portion of their spirit into more modern and popular tracts. Moreover, the Society of Jesuits, constituted as it was, had ready means of relieving itself from the discredit of such infamous publications; yet amongst the many works, which by their help found a place in the index of prohibited books, Pascal might have looked in vain for the works of their own Escobar. However this may be, it is universally acknowledged, that the credit of the Jesuits sunk under the blow, that these letters are a splendid monument of the genius of Pascal, and that as a literary work they have placed him in the very first rank among the French classics.

It seems that he had formed a design, even in the height of his scientific ardour, of executing some great work for the benefit of religion. This design took a more definite shape after his retirement, and he communicated orally to his friends the sketch of a comprehensive work on the Evidences of Christianity, which his early death, together with his increasing bodily infirmities, prevented him from completing. Nothing was left but unconnected fragments, containing for the most part his thoughts on subjects apparently relating to his great design, hastily written on small scraps of paper, without order or arrangement of any kind. They were published in 1670, with some omissions, by his friends of Port Royal, and were afterwards given to the world entire, under the title of the *Thoughts of Pascal*. Many of the thoughts are such as we should expect from a man who with a mind distinguished for its originality, with an intimate knowledge of scripture, and lively piety, had meditated much and earnestly on the subject of religion. In a book so published, it is of course easy enough to find matter for censure and minute criticism; but most Christian writers have been content to bear testimony to its beauties and to borrow largely from its rich and varied stores. Among the editors of the *Thoughts of Pascal* are found Condorcet and Voltaire, who enriched their editions with a commentary. With what sort of spirit they entered on their work may be guessed from Voltaire's well known advice to his brother philosopher. "Never be weary, my

friend, of repeating that the brain of Pascal was turned after his accident on the Pont de Neuilly." Condorcet was not the man to be weary in such an employment; but here he had to deal with stubborn facts. The brain of Pascal produced after the accident not only the *Thoughts*, but also the *Provincial Letters*, and the various treatises on the Cycloid, the last of which was written not long before his death.

He died August 19th, 1662, aged thirty-nine years and two months.

By those who knew him personally he is said to have been modest and reserved in his manners, but withal, ready to enliven conversation with that novelty of remark and variety of information which might be expected from his well stored and original mind. That spirit of railly which should belong to the author of the *Provincial Letters*, showed itself also occasionally in his talk, but always with a cautious desire not to give needless pain or offence.

He seemed to have constantly before his eyes the privations and sufferings to which a large portion of the human race is exposed, and to receive almost with trembling, those indulgences which were denied to others. Thus, when curtailing his own comforts that he might perform more largely the duties of charity, he seemed only to be disincumbering himself of that which he could not safely retain.

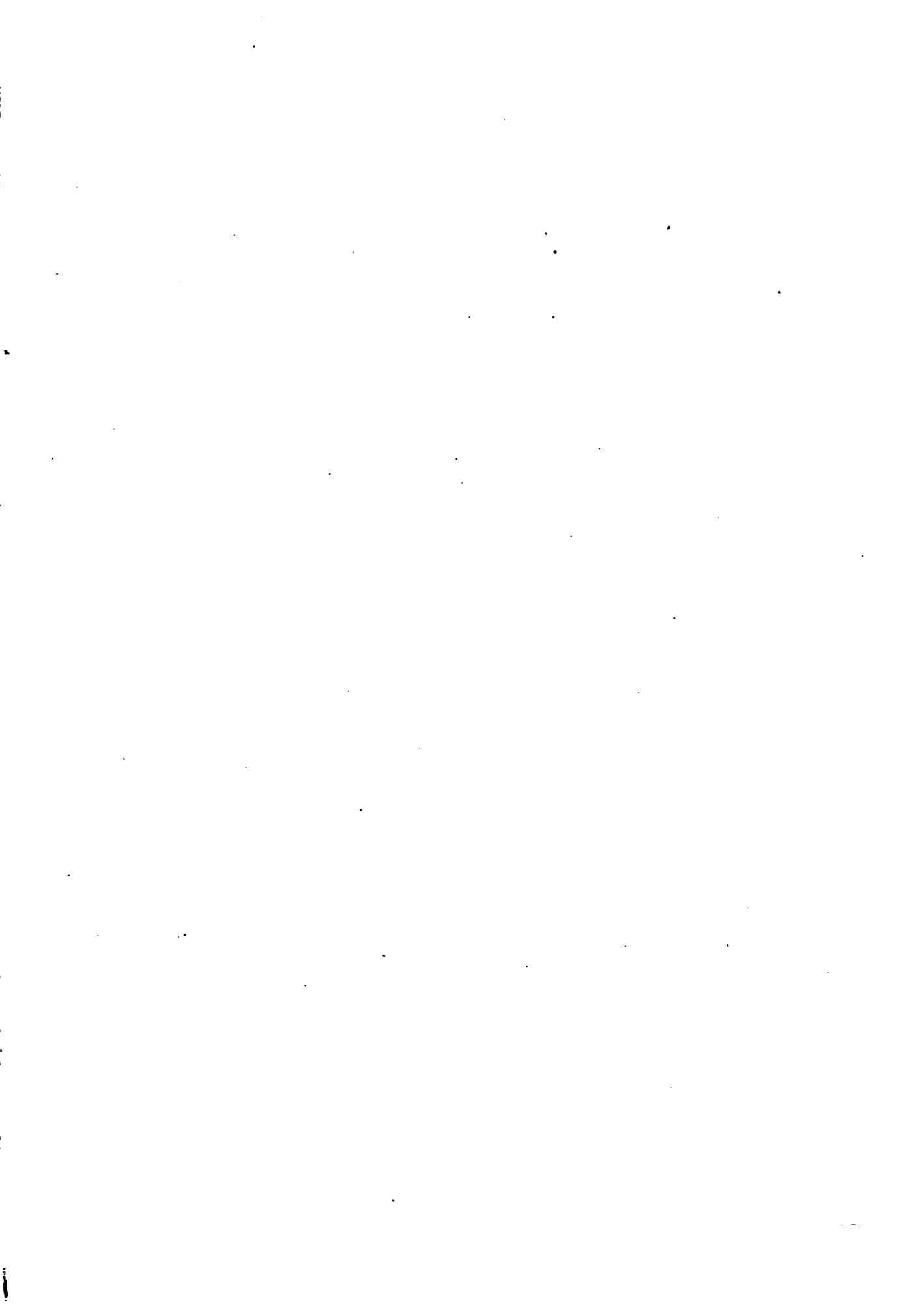
As a philosopher, it is the great glory of Pascal, that he is numbered with that splendid phalanx, which in the seventeenth century, following the path opened by Galileo, assisted to overthrow the tyranny of the schools, and to break down the fences which for ages had obstructed the progress of real knowledge; men who were indeed benefactors to science, and who have also left behind them for general use an encouraging proof that the most inveterate prejudices, the most obstinate attachment to established errors, and hostility to improvement may be overcome by resolute perseverance, and a bold reliance on the final victory of truth. No one, however, will coldly measure the honour due to this extraordinary man by his actual contributions to the cause of science or literature. The genius of the child anticipated manhood: his more matured intellect could only show promises of surpassing glory when it escaped from the weak frame in which it was lodged.

For further information the reader is referred to the discourse on the life and works of Pascal, which first appeared in the complete edition of his works in 1779, and has since been published separately at Paris; to the *Biographie Universelle*; and to the life of Pascal, written by his sister, Madame Perier, which is prefixed to her edition of his *Thoughts*.

DESIDERIUS ERASMUS was born at Rotterdam on the 28th of October, 1467. The irregular lives of his parents are related by him in a letter to the secretary of Pope Julius II. It is sufficient to state here, that this great genius and restorer of letters was not born in wedlock. His unsophisticated name, as well as that of his father, was Gerard. This word in the Dutch language means *amiable*. According to the affectation of the period, he translated it into the Latin term, Desiderius, and superadded the Greek synonyme of Erasmus. Late in a life of vicissitude and turmoil, he found leisure from greater evils to lament that he had been so neglectful of grammatical accuracy as to call himself Erasmus, and not Erasmius.

In a passage of the life written by himself, he says that "in his early years he made but little progress in those unpleasant studies to which he was not born;" and this gave his countrymen a notion that as a boy he was slow of understanding. Hereon Bayle observes that those unpleasant studies cannot mean learning in general, for which of all men he was born; but that the expression might apply to music, as he was a chorister in the cathedral church of Utrecht. He was afterwards sent to one of the best schools in the Netherlands, where his talents at once shone forth, and were duly appreciated. His master was so well satisfied with his progress, and so thoroughly convinced of his great abilities, as to have foretold what the event confirmed, that he would prove the envy and wonder of all Germany.

At the age of fourteen Erasmus was removed from the school at Deventer in consequence of the plague, of which his mother died, and his father did not long survive her. With a view to possess themselves of his patrimony, his guardians sent him to three several convents in succession. At length, unable longer to sustain the conflict, he reluctantly entered among the regular canons at Stein, near Tergou, in





Engraved by E. Detour

ERASMIUS.

*From the original statue by J. G. de
Witt, in his Museum at Utrecht.*

PRINTED AND PUBLISHED FOR THE SOCIETY FOR THE DIFFUSION OF USEFUL KNOWLEDGE.



1486. Much condescension to his peculiar humour was shown in dispensing with established laws and customary ceremonies ; but he was principally led to make his profession by the arts of his guardians and the dilapidation of his fortune. He describes monasteries, and his own in particular, as destitute of learning and sound religion. "They are places of impiety," he says in his piece 'De Contemptu Mundi,' "where every thing is done to which a depraved inclination can lead, under the mask of religion ; it is hardly possible for any one to keep himself pure and unspotted." Julius Scaliger and his other enemies assert that he himself was deeply tainted by these impurities ; but both himself and his friends deny the charge.

He escaped from the cloister in consequence of the accuracy with which he could speak and write Latin. This rare accomplishment introduced him to the Bishop of Cambray, with whom he lived till 1490. He then took pupils, among whom was the Lord Mountjoy, with several other noble Englishmen. He says of himself, that "he lived rather than studied" at Paris, where he had no books, and often wanted the common comforts of life. Bad lodgings and bad diet permanently impaired his constitution, which had been a very strong one. The plague drove him from the capital before he could profit as he wished by the instructions of the university in theology.

Some time after he left Paris, Erasmus came over to England, and resided in Oxford, where he contracted friendship with all of any note in literature. In a letter from London to a friend in Italy, he says, "What is it, you will say, which captivates you so much in England ? It is that I have found a pleasant and salubrious air ; I have met with humanity, politeness, and learning ; learning not trite and superficial, but deep and accurate ; true old Greek and Latin learning ; and withal so much of it, that but for mere curiosity, I have no occasion to visit Italy. When Colet discourses, I seem to hear Plato himself. In Grocyn, I admire an universal compass of learning. Linacre's acuteness, depth, and accuracy are not to be exceeded ; nor did nature ever form any thing more elegant, exquisite, and accomplished than More."

On leaving England, Erasmus had a fever at Orleans, which recurred every Lent for five years together. He tells us that Saint Genevieve interceded for his recovery ; but not without the help of a good physician. At this time he was applying diligently to the study of Greek. He says, that if he could but get some money, he would first buy Greek books, and then clothes. His mode of acquiring the language was by making translations from Lucian, Plutarch, and other authors. Many of these translations appear in his works, and answered

a double purpose ; for while they familiarized him with the languages, the sentiments and the philosophy of the originals, they also furnished him with happy trains of thought and expression, when he dedicated his editions of the Fathers, or his own treatises, to his patrons.

We cannot follow him through his incessant journeys and change of places during the first years of the sixteenth century. His fame was spread over Europe, and his visits were solicited by popes, crowned heads, prelates, and nobles ; but much as the great coveted his society, they suffered him to remain extremely poor. We learn from his ‘Enchiridion Militis Christiani,’ published in 1503, that he had discovered many errors in the Roman church, long before Luther appeared. His reception at Rome was most flattering : his company was courted both by the learned and by persons of the first rank and quality. After his visit to Italy, he returned to England, which he preferred to all other countries. On his arrival he took up his abode with his friend More, and within the space of a week wrote his ‘Encomium Moriae,’ the Praise of Folly, for their mutual amusement. The general design is to show that there are fools in all stations ; and more particularly to expose the court of Rome, with no great forbearance towards the Pope himself. Fisher, Bishop of Rochester, Chancellor of the University, and Head of Queen’s College, invited him to Cambridge, where he lived in the Lodge, was made Lady Margaret’s Professor of Divinity, and afterwards Greek Professor. But notwithstanding these academical honours and offices, he was still so poor as to apply with importunity to Colet, Dean of St. Paul’s, for fifteen angels as the price of a dedication. “ Erasmus’s Walk” in the grounds of Queen’s College still attests the honour conferred on the university by the temporary residence of this great reviver of classical learning.

On his return to the Low Countries, he was nominated by Charles of Austria to a vacant bishopric in Sicily ; but the right of presentation happened to belong to the Pope. Erasmus laughed heartily at the prospect of this incongruous preferment ; and said that as the Sicilians were merry fellows, they might possibly have liked such a bishop.

In the year 1516 he printed his edition, the first put forth in Greek, of the New Testament. We learn from his letters, that there was one college in Cambridge which would not suffer this work to be brought within its walls : but the public voice spoke a different language ; for it went through three editions in less than twelve years. From 1516 to 1526 he was employed in publishing the works of Saint Jerome. Luther blamed him for his partiality to this father. He says, “ I

prefer Augustine to Jerome, as much as Erasmus prefers Jerome to Augustine." As far as this was a controversy of taste and criticism, the restorer of letters was likely to have the better of the argument against the apostle of the Reformation.

The times were now become tempestuous. Erasmus was of a placid temper, and of a timid character. He endeavoured to reconcile the conflicting parties in the church; but with that infelicity commonly attendant on mediators, he drew on himself the anger of both. Churchmen complained that his censures of the monks, of their grimaces and superstitions, had paved the way for Luther. On the other hand, Erasmus offended the Lutherans, by protesting against identifying the cause of literature with that of the Reformation. He took every opportunity of declaring his adherence to the see of Rome. The monks, with whom he waged continual war, would have been better pleased had he openly gone over to the enemy: his caustic remarks would have galled them less proceeding from a Lutheran than from a Catholic. But his motives for continuing in the communion of the established church, are clearly indicated in the following passage: "Wherein could I have assisted Luther, if I had declared myself for him and shared his danger? Instead of one man, two would have perished. I cannot conceive what he means by writing with such a spirit: one thing I know too well, that he has brought great odium on the lovers of literature. He has given many wholesome doctrines and good counsels: but I wish he had not defeated the effect of them by his intolerable faults. But even if he had written in the most unexceptionable manner, I had no inclination to die for the sake of truth. Every man has not the courage necessary to make a martyr: I am afraid that, if I were put to the trial, I should imitate St. Peter."

In 1522 he published the works of Saint Hilary. About the same time he published his Colloquies. In this work, among the strokes of satire, he laughed at indulgences, auricular confession, and eating fish on fast-days. The faculty of theology at Paris passed the following censure on the book: "The fasts and abstinences of the church are slighted, the suffrages of the holy virgin and of the saints are derided, virginity is set below matrimony, Christians are discouraged from becoming monks, and grammatical is preferred to theological erudition." Pope Paul III. had little better to propose to the cardinals and prelates commissioned to consider about the reform of the church, than that young persons should not be permitted to read Erasmus's Colloquies. Colineus took a hint from this prohibition:

he reprinted them in 1527, and sold off an impression of twenty-four thousand.

In 1524 a rumour was spread abroad that Erasmus was going to write against Luther, which produced the following characteristic letter from the Great Reformer : “ Grace and peace from the Lord Jesus. I shall not complain of you for having behaved yourself as a man alienated from us, for the sake of keeping fair with the Papists ; nor was I much offended that in your printed books, to gain their favour or soften their fury, you censured us with too much acrimony. We saw that the Lord had not conferred on you the discernment, courage, and resolution to join with us in freely and openly opposing these monsters ; therefore we did not expect from you what greatly surpasseth your strength and capacity. We have borne with your weakness, and honoured that portion of the gift of God which is in you I never wished that deserting your own province you should come over to our camp. You might indeed have favoured us not a little by your wit and eloquence : but as you have not the courage requisite, it is safer for you to serve the Lord in your own way. Only we feared that our adversaries should entice you to write against us, in which case necessity would have constrained us to oppose you to your face. I am concerned that the resentment of so many eminent persons of your party has been excited against you : this must have given you great uneasiness ; for virtue like yours, mere human virtue, cannot raise a man above being affected by such trials. Our cause is in no peril, although even Erasmus should attack it with all his might : so far are we from dreading the keenest strokes of his wit. On the other hand, my dear Erasmus, if you duly reflect on your own weakness, you will abstain from those sharp, spiteful figures of rhetoric, and treat of subjects better suited to your powers.” Erasmus’s answer is not found in the collection of his letters ; but he must have been touched to the quick.

In 1527 he published two dialogues : the first, on ‘The pronunciation of the Greek and Latin Languages,’ full of learning and curious research : the second, entitled ‘Ciceronianus.’ In this lively piece he ridicules those Italian pedants who banished every word or phrase unauthorized by Cicero. His satire, however, is not directed against Cicero’s style, but against the servility of mere imitation. In a subsequent preface to a new edition of the Tusculan Questions, he almost canonizes Cicero, both for his matter and expression. Julius Scaliger had launched more than one philippic against him for his treatment of the Ciceronians ; but he considered this preface as a kind of penance

for former blasphemies, and admitted it as an atonement to the shade of the great Roman. Erasmus had at this time fixed his residence at Bâsle. He was advancing in years, and complained in his letters of poverty and sickness. Pope Paul III., notwithstanding his Colloquies, professed high regard for him, and his friends thought that he was likely to obtain high preferment. Of this matter Erasmus writes thus : “ The Pope had resolved to add some learned men to the college of Cardinals, and I was named to be one. But to my promotion it was objected, that my state of health would unfit me for that function, and that my income was not sufficient.”

In the summer of 1536 his state of exhaustion became alarming. His last letter is dated June 20, and subscribed thus : “ Erasmus Rot. ægra manu.” He died July 12, in the 59th year of his age, and was buried in the cathedral of Bâsle. His friend Beatus Rhenanus describes his person and manners. He was low of stature, but not remarkably short, well-shaped, of a fair complexion, grey eyes, a cheerful countenance, a low voice, and an agreeable utterance. His memory was tenacious. He was a pleasant companion, a constant friend, generous and charitable. Erasmus had one peculiarity, humorously noticed by himself; namely, that he could not endure even the smell of fish. On this he observed, that though a good Catholic in other respects, he had a most heterodox and Lutheran stomach.

With many great and good qualities, Erasmus had obvious failings. Bayle has censured his irritability when attacked by adversaries ; his editor, Le Clerc, condemns his lukewarmness and timidity in the business of the Reformation. Jortin defends him with zeal, and extenuates what he cannot defend. “ Erasmus was fighting for his honour and his life ; being accused of nothing less than heterodoxy, impiety, and blasphemy, by men whose forehead was a rock, and whose tongue was a razor. To be misrepresented as a pedant and a dunce is no great matter ; for time and truth put folly to flight : to be accused of heresy by bigots, priests, politicians, and infidels, is a serious affair ; as they know too well who have had the misfortune to feel the effects of it.” Dr. Jortin here speaks with bitter fellow-feeling for Erasmus, as he himself had been similarly attacked by the high church party of his day. He goes on to give his opinion, that even for his lukewarmness in promoting the Reformation, much may be said, and with truth. “ Erasmus was not entirely free from the prejudices of education. He had some indistinct and confused notions about the authority of the Catholic Church, which made it not lawful to depart from her, cor-

rupted as he believed her to be. He was also much shocked by the violent measures and personal quarrels of the Reformers. Though, as Protestants, we are more obliged to Luther, Melancthon, and others, than to him, yet we and all the nations in Europe are infinitely indebted to Erasmus for spending a long and laborious life in opposing ignorance and superstition, and in promoting literature and true piety." To us his character appears to be strongly illustrated by his own declaration, "Had Luther written truly every thing that he wrote, his seditious liberty would nevertheless have much displeased me. I would rather even err in some matters, than contend for the truth with the world in such a tumult." A zealous advocate of peace at all times, it is but just to believe that he sincerely dreaded the contests sure to rise from open schism in the church. And it was no unpardonable frailty, if this feeling were nourished by a temperament, which confessedly was not desirous of the palm of martyrdom.

It is impossible to give the contents of works occupying ten volumes in folio. They have been printed under the inspection of the learned Mr. Le Clerc. The biography of Erasmus is to be found at large in Bayle's Dictionary, and the copious lives of Knight and Jortin.

From the bronze statue of Erasmus at Rotterdam.



Engraved by W. Holl

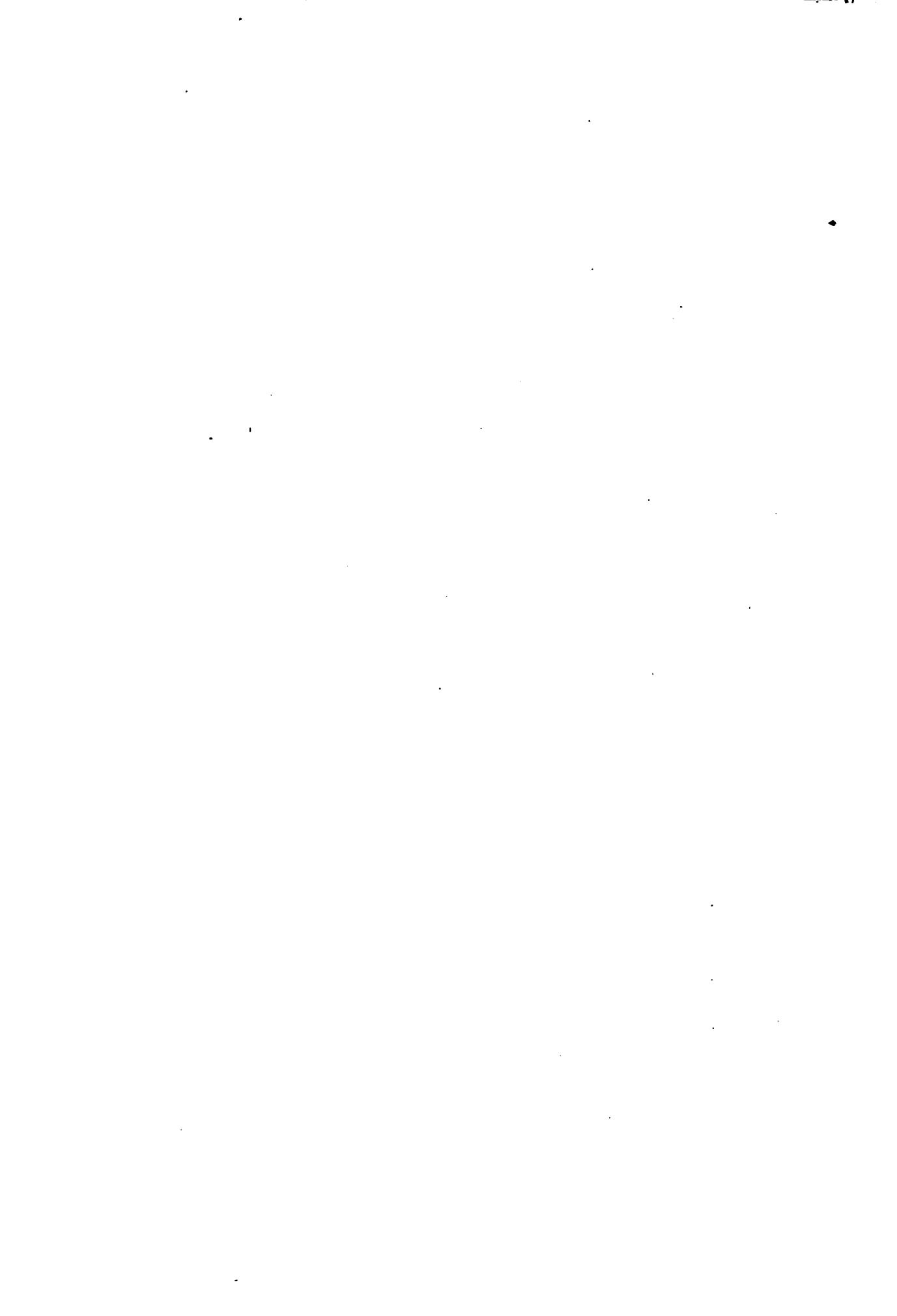
TITIAN

*From the Picture of Diana, which painted by Titian
in his Majestys Workes at Eltham*

after the original picture in the Scuola di Santa Domenica, at Venice.

London Published by Charles Knight, 10, Pall Mall East.





ON looking back to the commencement of the sixteenth century, by far the most brilliant epoch of modern art, we cannot but marvel at the splendour and variety of talent concentrated within the brief space of half a century, or less. Michael Angelo, Raphael, Correggio, Titian, all fellow-labourers, with many others inferior to these mighty masters, yet whose works are prized by kings and nobles as their most precious treasures—by what strange prodigality of natural gifts, or happy combination of circumstances was so rare an assemblage of genius produced in so short a time? The most obvious explanation is to be found in the princely patronage then afforded to the arts by princes and churchmen. By this none profited more largely or more justly than the great painter, whose life it is our task to relate.

Tiziano Vecelli was born of an honourable family at Capo del Cadore, a small town on the confines of Friuli, in 1480. He soon manifested the bent of his genius, and at the age of ten was consigned to the care of an uncle residing in Venice, who placed him under the tuition of Giovanni Bellini, then in the zenith of his fame. The style of Bellini though forcible is dry and hard, and little credit has been given to him for his pupil's success. It is probable, however, that Titian imbibed in his school those habits of accurate imitation, which enabled him afterwards to unite boldness and truth, and to indulge in the most daring execution, without degenerating into mannerism. The elements of his future style he found first indicated by Leonardo da Vinci, and more developed in the works of Giorgione, who adopted the principles of

Lionardo, but with increased power, amenity, and splendour. As soon as Titian became acquainted with this master's paintings, he gave his whole attention to the study of them ; and with such success, that the portrait of a noble Venetian named Barbarigo, which he painted at the age of eighteen, was mistaken for the work of Giorgione. From that time, during some years, these masters held an equal place in public esteem ; but in 1507 a circumstance occurred which turned the balance in favour of Titian. They were engaged conjointly in the decoration of a public building, called the Fondaco de Tedeschi. Through some mistake that part of the work which Titian had executed, was understood by a party of connoisseurs to have been painted by Giorgione, whom they overwhelmed with congratulations on his extraordinary improvement. It may be told to his credit, that though he manifested some weakness in discontinuing his intercourse with Titian, he never spoke of him without amply acknowledging his merits.

Anxious to gain improvement from every possible source, Titian is said to have drawn the rudiments of his fine style of landscape painting from some German artists who came to Venice about the time of this rupture. He engaged them to reside in his house, and studied their mode of practice until he had mastered their principles. His talents were now exercised on several important works, and it is evident, from the picture of the Angel and Tobias, that he had already acquired an extraordinary breadth and grandeur of style. The Triumph of Faith, a singular composition, manifesting great powers of invention, amid much quaintness of character and costume, is known by a wood engraving published in 1508. A fresco of the Judgment of Solomon, for the Hall of Justice at Vicenza, was his next performance. After this he executed several subjects in the church of St. Anthony, at Padua, taken from the miracles attributed to that saint.

These avocations had withdrawn him from Venice. On his return, in the thirty-fourth year of his age, he was employed to finish a large picture left imperfect by Bellini, or, according to some authorities, by Giorgione, in the great Council Hall of Venice, representing the Emperor Frederick Barbarossa on his knees before Pope Alexander III. at the entrance of St. Mark's. The Senate were so well satisfied with his performance, that they appointed him to the office called La Senseria ; the conditions of which were, that it should be held by the best painter in the city, with a salary of three hundred scudi, he engaging to paint the portrait of each Doge on his election, at the price of eight scudi. These portraits were hung in one of the public apartments of St.

Mark. At the close of 1514 Titian was invited to Ferrara by the Duke Alphonso. For him he executed several splendid works; among them, portraits of the Duke, and of his wife, and that celebrated picture of Bacchus and Ariadne, now in our own National Gallery.

The first works executed by Titian after his return to Venice, prove that he had already accomplished that union of grand design with brilliant colouring, which was designated by Tintoret as the highest perfection of painting. His immense picture of the Assumption, formerly in the church of Santa Maria Gloriosa, and now in the Academy of Venice, exhibits, in the opinion of some first-rate judges, various excellences, such as have never been combined in any single performance, but by Titian himself*. The Virgin, whose figure relieves dark on the irradiated back-ground, seems to ascend amid a flood of glory. She is surrounded and sustained by angels of ineffable beauty, and the disciples below are personifications of apostolic grandeur. It will scarcely be credited that the Monks, for whom this picture was painted, objected to it on account of its apparent reality; but the voice of public admiration soon made them sensible of its merits, and they refused a large sum offered for it by the Imperial Ambassador. Such a report of this work was made to Leo X. by Cardinal Bembo, that Titian received an invitation to Rome from the Pontiff, with the offer of honourable appointments. A similar proposal from Francis I. of France, whose portrait he painted in 1515, he had already declined; but he yielded to the temptation of visiting Rome, being not less anxious to see the great works of contemporary genius, than the wonders of ancient art. He did not, however, carry his purpose into effect at this time, but remained at Venice; and thus secured to her the possession of those noble works, which, when they were produced, formed the brightest ornament of her power, and even now, when her other glories are set, confer upon her an imperishable distinction.

To recompense in some degree his relinquishment of this invitation, Titian was employed by the Senate to paint the Battle of Cadore, fought between the Venetians and the Imperialists; a splendid production, which perished when the Ducal Palace was burnt. About this time was painted the fine altar-piece of the Pesari Family returning thanks to the Virgin for a victory over the Turks. This picture, as an example of simple grandeur, has been contrasted by Reynolds with the artificial splendour of Rubens; and Fuseli alludes to

* The writer has been informed by Canova that this was his own opinion, and that of Sir Thomas Lawrence.

it as constituting the due medium between dry apposition and exuberant contrast. The sublime picture of S. Pietro Martire was painted in 1523. Of this it is difficult to speak in adequate terms, without the appearance of hyperbolical panegyric. The composition is well known by engravings; but these convey only a faint notion of the original, which unites the utmost magnificence of historical design, with the finest style of landscape-painting. The gorgeous hues of Titian's colouring are tempered in this picture by an impressive solemnity. The scene of violence and blood, though expressed with energy, is free from contortion or extravagance; grandeur pervades the whole, and even the figure of the flying friar has a character of dignity rarely surpassed. Two pictures on the same subject, the one by Domenichino, in the Academy of Bologna, the other by Giorgione, in our National Gallery, if compared with that of Titian, convey a forcible impression of the difference between first-rate genius and the finest talents of a secondary order. The picture of Giorgione is, however, most *Titianesque* in colouring.

In 1526 the celebrated satirist Aretine, and Sansovino the sculptor, came to reside in Venice. With these distinguished men Titian contracted an intimacy, which was the source of great pleasure to him, and ceased only with their lives. When Charles V. visited Bologna in 1529, Titian was invited to that city, where he painted an equestrian portrait of the Emperor. Charles, not only an admirer but a judge of art, was astonished at a style of painting of which he had formed no previous conception; he remunerated the artist splendidly, and expressed his determination never to sit to any other master. On returning to Bologna in 1532, he summoned Titian again to his court, and engaged him in many important works, treating him on all occasions with extraordinary respect and regard. It is affirmed, that in riding through Bologna he kept upon the artist's right hand, an act of courtesy which excited such displeasure among the courtiers that they ventured upon a remonstrance. The answer given by Charles is well known, and has been since ascribed to other monarchs: "I have many nobles in my empire, but only one Titian." On leaving Bologna, Titian accompanied Frederic Gonzaga, Duke of Mantua, home to his own state; where, besides painting portraits of the Duke and his brother the Cardinal, he ornamented an apartment of the palace contiguous to the rooms painted by Giulio Romano, with portraits of the twelve Cæsars, taking his authorities from medals and antique marbles.

In passing through Parma, on the way to Mantua, he first saw the works of Correggio, who had been engaged in painting ~~the~~ the

of the cathedral. So little was that great man's genius appreciated, and such was the ignorance of his employers, that they had actually dismissed him as inadequate to the task he had undertaken ; nor was he allowed to resume it, until the lavish admiration bestowed on his work by Titian, had taught them better how to estimate his talents.

On returning to Venice, Titian found that a strong party had been raised in favour of Pordenone. He expressed no slight indignation at the attempt to exalt that painter to an equality with himself. Pordenone, nevertheless, was an artist of considerable powers, although certainly not qualified to compete with such an antagonist. The number of pictures which Titian continued to execute, would far exceed our limits to enumerate, and is so great as to excite astonishment ; more especially as there is little evidence in his works that he was much assisted by inferior hands. In 1543, when Pope Paul III. visited Bologna, Titian painted an admirable portrait of him, and received an invitation to Rome. But he was unable to accept it, having engagements with the Duke of Urbino, whose palace he accordingly enriched with portraits of Charles V., Francis I., the Duke Guidobaldo, the Popes Sixtus IV., Julius II., and Paul III., the Cardinal of Lorraine, and Solyman, Emperor of the Turks.

Truth, it appears, rather than embellishment, was sought for in the portraits of those days. Titian's portrait of Paul III. is executed with uncompromising accuracy. The figure is diminutive and decrepit, but the eyes have a look of penetrating sagacity. His Holiness was greatly pleased with it ; and, as a mark of his favour, made offer to the artist of a valuable situation in a public department ; which Titian declined, upon finding that his emoluments were to be deducted from the income of those who already held possession of it. He obtained, however, the promise of a benefice for his son Pomponio. Aretine thought his friend illiberally treated by Paul, and did not scruple to publish his opinion on the subject.

In 1545, when the Venetian Senate was compelled by the public exigencies to lay a general tax on the city, Titian was the only person exempted from the impost,—a noble homage to genius, which attests at once the liberality and the wisdom of that government. In this year, Titian having completed his engagements with the Duke of Urbino, and being, through the Cardinal Farnese, again invited to Rome, determined on a visit to that city ; and he set out, accompanied by his son Orazio, several pupils, and a considerable number of domestics. He was received at Urbino by the Duke Guidobaldo II., and splendidly entertained for some days. On his departure, the Duke

accompanied him from Urbino to Pesaro, and from thence sent forward with him a suite of horses and servants, as far as the gates of Rome. Here he was greeted with corresponding honours, and lodged in the Belvedere Palace. Vasari was, at this time, in the employment of Cardinal Farnese, and had the gratification of attending the great artist about the city. Titian was now engaged to paint a whole length portrait of Paul III., with the Cardinal Farnese and Duke Ottavio in one group. This picture is at present in the Museo Borbonico ; and is a fine example of that highest style of portrait painting, which is scarce less difficult, or less elevated as a branch of art, than historical composition. An “Ecce homo,” painted at the same time, does not appear to have excited that admiration which his works usually obtained. The taste of the Roman artists and connoisseurs had been formed on the severe examples of Michael Angelo, Raphael, Polidoro, and others ; so that the style of Titian was tried by a new and conventional standard, to which it was not fairly amenable. It was insinuated that his chief excellence lay in portrait-painting. Vasari relates that, in company with Michael Angelo, he made a visit to Titian at the Belvedere, and found him employed on the celebrated picture of Danae. Michael Angelo bestowed high commendations on it ; but, as they went away, remarked to Vasari on Titian’s inaccurate style of design, observing, that if he had received his elementary education in a better school, his works would have been inimitable. Nothing, perhaps, has tended more than this anecdote to give currency to a belief that Titian was an unskilful draughtsman ; an opinion which, if tried by the test of his best works, is utterly erroneous. There is not perhaps extant on canvass a more exquisite representation of female beauty, even in point of design, than this figure of Danae ; and, with due reverence to the high authority of Michael Angelo, it may be doubted whether his notion of correct design was not tinctured by the ideal grandeur of his own style ; which, however magnificent in itself, and appropriate to the scale of the Sistine chapel, is by no means a just medium for the forms of actual nature, nor adapted to the representation of beauty. Michael Angelo however frequently returned to look at this Danae, and always with expressions of increased admiration.

After a residence of two years at Rome, Titian returned to Venice, taking Florence in his route. The first work on which he engaged after his return, was a picture of the Marquis del Vasto haranguing his troops. He likewise began some altar-pieces, but finished little, being summoned in 1550, by the Emperor Charles, to Vienna. The princes

and ministers assembled at the Imperial Court were astonished at the confidence with which Titian was honoured by the Emperor, who gave him free access to his presence at all times, a privilege extended only to his most intimate friends. The large sums which the Emperor frequently sent him, were always accompanied with the courteous assurance that they were meant to testify the monarch's sense of his merits, not in payment for his works, those being beyond all price. On one occasion, while the Emperor was sitting for his portrait, Titian dropt a pencil ; the monarch picked it up, and presented it to him, saying, on Titian's apologizing in some confusion, "Titian is worthy to be served by Cæsar." The same jealous feeling which had been evinced towards him at Bologna, again manifested itself ; but the artist, who amidst his loftier studies had not neglected the cultivation of worldly knowledge, found means to obviate envy, and to conciliate, by courtesy and presents, the good will of the whole court. It was at this time that Charles, sated with glory and feeling the advances of infirmity, began to meditate his retreat from the world. This intention, it is said, he imparted to Titian, with whom he delighted to confer concerning the arrangement of a large picture, which he then commissioned the artist to paint, and which he intended to be his companion in his retirement. The subject was an apotheosis, in which Charles and his family were to be represented as introduced by Religion into the presence of the Trinity. At Inspruck, whither he accompanied the Emperor, Titian painted a superb picture, in which Ferdinand, King of the Romans, and his Queen Anna Maria, are represented with the attributes of Jupiter and Juno, and round them are the seven princesses, their daughters. From each of these illustrious ladies, Titian received a jewel each time they sat to him. Here also he collected portraits for the apotheosis.

On the Emperor's departure for Flanders, Titian returned to Venice; where, soon after his arrival, he offered to finish the works which were wanting in the great hall of the council. This offer was cordially accepted by the Senate ; and he was empowered to select the artists whom he thought best qualified to be his coadjutors. He nominated Paul Veronese and Tintoret, nor did those great painters feel themselves humiliated in working under his directions. In 1553 the Emperor Charles returned to Spain, and being at Barcelona, nominated Titian a Count Palatine of the empire, with all the privileges, authority, and powers attached to that dignity. He also created him a Knight of the Golden Spur, and a noble of the empire, transmitting the dignity to his legitimate children and descendants. Crowned with these honours, and with faculties scarcely impaired, Titian had now

reached his seventy-fifth year ; and it would be difficult to select a man the evening of whose life has been more fortunate and happy. He still found in the practice of his art a source of undiminished pleasure ; his works were sought by princes with emulous avidity ; he was considered the chief ornament of the city in which he dwelt. He was surrounded by friends distinguished by their worth or talents ; he had acquired wealth and honour sufficient to satisfy his utmost ambition ; and he was secure of immortal fame !

But at this period, to most men one of secession from toil, Titian engaged in new undertakings with as much alacrity as if life were still beginning, and the race of fortune still to run. He enriched Serravalle, Braganza, Milan, and Brescia, with splendid works, besides painting a great number for the churches of Venice, for different noblemen, and for his friends. Philip II. of Spain showed no less anxiety to possess his works, than Charles, his father, had done : and nowhere perhaps, not even in Venice, are so many of his pictures to be found, as in the palaces of Madrid and the Escorial. When Rubens was in Spain, he copied Titian's picture of Eve tempting Adam with the fatal fruit, nobly acknowledging that he had only made a Flemish translation of an elegant Italian poem. It is said by some of Titian's biographers, that he himself made a visit to Spain ; but this has been clearly disproved. The most important works which he executed for Philip II. are the pictures of the Martyrdom of St. Lorenzo, and the Last Supper. In the first, three different effects of light are admirably expressed ; the fire which consumes the saint, the flame of a tripod placed before a pagan deity, and the glory of a descending angel. This picture is said to be equal to any of his earlier productions. The Last Supper betrays signs of a feebler execution, which is, however, atoned for by more than usual purity of design. Titian in this work partially imitated Leonardo da Vinci, but in the spirit of congenial feeling, not as a plagiarist. To this picture, which he began at the age of eighty, he devoted the labour of nearly seven years. For Mary of England, Philip II.'s consort, he painted four mythological subjects, Prometheus, Tityus, Sisiphus, and Tantalus, the figures as large as life, and conceived in the highest style of grandeur.

In 1570 died Sansovino the sculptor. Aretine had paid the debt of nature some years before, an event which sensibly affected Titian ; and this second loss plunged him into such affliction, that his powers, it is said, from that time perceptibly gave way. We learn, however, from Ridolfi, that the Transfiguration on Mount Tabor, which he saw when in good condition, was ably executed. Some visions from

the Apocalypse, in the monastery of St. John, painted about the same time, exhibit vivid imagination and fine colouring.

Henry III. of France, being in Venice in 1574, paid Titian a visit, accompanied by a numerous train. The venerable artist, then in his ninety-fifth year, received the monarch with dignified respect; his fine person was scarcely touched by decrepitude, his manners were still noble and prepossessing. In a long conversation with the King, he adverted, with the complacency natural to an old man at the close of so splendid a career, to honours which he had received from the Emperor Charles and King Ferdinand. When Henry, in walking through the galleries, demanded the prices of some of the pictures, he begged his Majesty's acceptance of them as a free gift. In the mean time the courtiers and attendants were entertained with a magnificence, which might have become the establishment of a great prince.

Titian had nearly attained his hundredth year, when the plague, which had been raging some time in Trent, made its appearance in Venice, and swept him off, together with a third part of the inhabitants, within three months. He was buried in the church of the Frari; but the consternation and disorders prevalent at such a period, prevented his receiving those funeral honours which would otherwise have attended him to the tomb.

In comparing Titian with the great artists of the Roman and Florentine schools, it has been usual to describe him as the painter of physical nature, while to those masters has been assigned the loftier and exclusive praise of depicting the mind and passions. The works on which Titian was most frequently employed, appertaining to public edifices and the pomp of courts, were certainly of a class in which splendid effect is the chief requisite; but can it be said that the painter of the Ascension of the Virgin, and the S. Pietro Martire, was unequal to cope with subjects of sublimity and pathos? May it not be asked with greater justice, on the evidence of those pictures, whether any artist has surpassed him in those qualities? Even in design, on which point his capacity has been especially arraigned, Titian knew how to seize the line of grandeur without swelling into exaggeration, and to unite truth with ideality. Of all painters he was most above the ostentation of art; like Nature herself, he worked with such consummate skill that we are sensible of the process only by its effect. Rubens, Tintoret, Paul Veronese, were proud of their execution; few painters are not,—but the track of Titian's pencil

is scarcely ever discernable. His chiar-oscuro, or disposition of light and shade, is never artificially concentrated ; it is natural, as that of a summer's day. His colouring, glorious as it is, made up of vivid contrasts, and combining the last degree of richness and depth with freshness and vivacity, is yet so graduated to the modesty of nature, that a thought of the painter's palette never disturbs the illusion. Were it required to point out, amidst the whole range of painting, one performance as a proof of what art is capable of accomplishing, it is surely from among the works of Titian that such an example would be selected.

There is scarcely any large collection in which the works of Titian are not to be found. The pictures of Actæon and Callisto in the possession of Lord F. L. Gower, and the four subjects in the National Gallery, are among the finest in this country. The Venus in the Dulwich Gallery must have been fine; but the glazing, a very essential part of Titian's process, has flown.

Details of the life of Titian will be found in Vasari, Lanzi, Ridolfi, but more especially in Ticozzi, whose memoir is at once diffuse and perspicuous. There is a life of Titian, in English, by Northeote.

Titian and Francesco di Mosaico, from a picture by Titian.



Presented by E. W. H.

L I B T H A R K .

' & from the original 'Crown & Coffer' ¹⁸⁰⁰
in his Majestys Library at Windsor'

Printed for S. C. Treadwell, 1822. See also the Description of the following.

See also Catalogue Part II. Vol. I.





MARTIN LUTHER was born at Eisleben in Saxony in the year 1483, on the 10th of November; and if in the histories of great men it is usual to note with accuracy the day of their nativity, that of Luther has a peculiar claim on the biographer, since it has been the especial object of horoscopic calculations, and has even occasioned some serious differences among very profound astrologers. Luther has been the subject of unqualified admiration and eulogy: he has been assailed by the most virulent calumnies; and, if any thing more were wanted to prove the *personal* consideration in which he was held by his contemporaries, it would be sufficient to add, that he has also been made a mask for their follies.

He was of humble origin. At an early age he entered with zeal into the Order of Augustinian Hermits, who were Monks and Mendicants. In the schools of the Nominalists he pursued with acuteness and success the science of sophistry. And he was presently raised to the theological chair at Wittemberg: so that his first prejudices were enlisted in the service of the worst portion of the Roman Catholic Church; his opening reason was subjected to the most dangerous perversion; and a sure and early path was opened to his professional ambition. Such was *not* the discipline which could prepare the mind for any independent exertion; such were not the circumstances from which an ordinary mind could have emerged into the clear atmosphere of truth. In dignity a Professor, in theology an Augustinian, in philosophy a Nominalist, by education a Mendicant Monk, Luther seemed destined to be a pillar of the Roman Catholic Church, and a patron of all its corruptions.

But he possessed a genius naturally vast and penetrating, a memory
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quick and tenacious, patience inexhaustible, and a fund of learning very considerable for that age : above all, he had an erect and daring spirit, fraught with magnanimity and grandeur, and loving nothing so well as truth ; so that his understanding was ever prepared to expand with the occasion, and his principles to change or rise, according to the increase and elevation of his knowledge. Nature had endued him with an ardent soul, a powerful and spacious understanding ; education had chilled the one and contracted the other ; and when he came forth into the fields of controversy, he had many of those trammels still hanging about him, which patience, and a succession of exertions, and the excitement of dispute, at length enabled him for the most part to cast away.

In the year 1517, John Tetzel, a Dominican Monk, was preaching in Germany the indulgences of Pope Leo X. ; that is, he was publicly selling to all purchasers remission of all sins, past, present, or future, however great their number, however enormous their nature. The expressions with which Tetzel recommended his treasure appear to have been marked with peculiar impudence and indecency. But the act had in itself nothing novel or uncommon : the sale of indulgences had long been recognized as the practice of the Roman Catholic Church, and even sometimes censured by its more pious, or more prudent members. But the crisis was at length arrived in which the iniquity could no longer be repeated with impunity. The cup was at length full ; and the hand of Luther was destined to dash it to the ground. In the schools of Wittemberg the Professor publicly censured, in ninety-five propositions, not only the extortion of the Indulgence-mongers, but the co-operation of the Pope in seducing the people from the true faith, and calling them away from the only road to salvation.

This first act of Luther's evangelical life has been hastily ascribed by at least three eminent writers of very different descriptions, (Bossuet, Hume, and Voltaire,) to the narrowest monastic motive, the jealousy of a rival order. It is asserted that the Augustinian Friars had usually been invested in Saxony with the profitable commission, and that it only became offensive to Luther when it was transferred to a Dominican. There is no ground for that assertion. The Dominicans had been for nearly three centuries the peculiar favourites of the Holy See, and objects of all its partialities ; and it is particularly remarkable, that, after the middle of the fifteenth century, during a period scandalously fruitful in the abuse in question, we very rarely meet with the name of any Augustinian as employed in that service. Moreover, it is almost equally important to add, that none of the con-

temporary adversaries of Luther ever advanced the charge against him, even at the moment in which the controversy was carried on with the most unscrupulous rancour.

The matter in dispute between Luther and Tetzel went in the first instance no farther than this—whether the Pope had authority to remit the divine chastisements denounced against offenders in the present and in a future state—or whether his power only extended to such human punishments, as form a part of ecclesiastical discipline—for the latter prerogative was not yet contested by Luther. Nevertheless, his office and his talents drew very general attention to the controversy; the German people, harassed by the exactions, and disgusted with the insolence of the papal emissaries, declared themselves warmly in favour of the Reformer; while on the other hand, the supporters of the abuse were so violent and clamorous, that the sound of the altercation speedily disturbed the festivities of the Vatican.

Leo X., a luxurious, indolent, and secular, though literary pontiff, would have disregarded the broil, and left it, like so many others, to subside of itself, had not the Emperor Maximilian assured him of the dangerous impression it had already made on the German people. Accordingly he commanded Luther to appear at the approaching diet of Augsburg, and justify himself before the papal legate. At the same time he appointed the Cardinal Cajetan, a Dominican and a professed enemy of Luther, to be arbiter of the dispute. They met in October, 1518; the legate was imperious; Luther was not submissive. He solicited reasons; he was answered only with authority. He left the city in haste, and appealed “to the Pope *better informed*,”—yet it was still to the Pope that he appealed, he still recognized his sovereign supremacy. But in the following month Leo published an edict, in which he claimed the power of delivering sinners from *all* punishments due to every sort of transgression; and thereupon Luther, despairing of any reasonable accommodation with the pontiff, published an appeal from the Pope to a General Council.

The Pope then saw the expediency of conciliatory measures, and accordingly despatched a layman, named Miltitz, as his legate, with a commission to compose the difference by private negotiations with Luther. Miltitz united great dexterity and penetration with a temper naturally moderate, and not inflamed by ecclesiastical prejudices. Luther was still in the outset of his career. His opinions had not yet made any great progress towards maturity; he had not fully ascertained the foundations on which his principles were built; he had not

proved by any experience the firmness of his own character. He yielded—at least so far as to express his perfect submission to the commands of the Pope, to exhort his followers to persist in the same obedience, and to promise silence on the subject of indulgences, provided it were also imposed upon his adversaries.

It is far too much to say (as some have said) that had Luther's concession been carried into effect, the Reformation would have been stifled in its birth. The principles of the Reformation were too firmly seated in reason and in truth, and too deeply ingrafted in the hearts of the German people, to remain long suppressed through the infirmity of any individual advocate. But its progress might have been somewhat retarded, had not the violence of its enemies afforded it seasonable aid. A doctor named Eckius, a zealous satellite of papacy, invited Luther to a public disputation in the castle of Pleissenburg. The subject on which they argued was the supremacy of the Roman pontiff; and it was a substantial triumph for the Reformer, and no trifling insult to papal despotism, that the appointed arbiters left the question undecided.

Eckius repaired to Rome, and appealed in person to the offended authority of the Vatican. His remonstrances were reiterated and inflamed by the furious zeal of the Dominicans, with Caietan at their head. And thus Pope Leo, whose calmer and more indifferent judgment would probably have led him to accept the submission of Luther, and thus put the question for the moment at rest, was urged into measures of at least unseasonable vigour. He published a bull on the 15th of June, 1520, in which he solemnly condemned forty-one heresies extracted from the writings of the Reformer, and condemned these to be publicly burnt. At the same time he summoned the author, on pain of excommunication, to confess and retract his pretended errors within the space of sixty days, and to throw himself upon the mercy of the Vatican.

Open to the influence of mildness and persuasion, the breast of Luther only swelled more boldly when he was assailed by menace and insult. He refused the act of humiliation required of him; more than that, he determined to anticipate the anathema suspended over him, by at once withdrawing himself from the communion of the church; and again, having come to that resolution, he fixed upon the manner best suited to give it efficacy and publicity. With this view, he caused a pile of wood to be erected without the walls of Wittemberg, and there, in the presence of a vast multitude of all ranks and orders, he committed the bull to the flames; and with it, the Decree, the Decretals, the Clementines, the Extravagants, the entire code of

Romish jurisprudence. It is necessary to observe, that he had prefaced this measure by a renewal of his former appeal to a General Council; so that the extent of his resistance may be accurately defined: he continued a faithful member of the Catholic Church, but he rejected the despotism of the Pope, he refused obedience to an unlimited and usurped authority. The bull of excommunication immediately followed (January 6, 1521), but it fell without force; and any dangerous effect, which it might otherwise have produced, was obviated by the provident boldness of Luther.

Here was the origin of the Reformation. This was the irreparable breach, which gradually widened to absolute disruption. The Reformer was now compromised, by his conduct, by his principles, perhaps even by his passions. He had crossed the bounds which divided insubordination from rebellion, and his banners were openly unfurled, and his legions pressed forward on the march to Rome. Henceforward the champion of the Gospel entered with more than his former courage on the pursuit of truth; and having shaken off one of the greatest and earliest of the prejudices in which he had been educated, he proceeded with fearless independence to examine and dissipate the rest.

Charles V. succeeded Maximilian in the empire in the year 1519; and since Frederic of Saxony persisted in protecting the person of the Reformer, Leo X. became the more anxious to arouse the imperial indignation in defence of the injured majesty of the Church. In 1521 a diet was assembled at Worms, and Luther was summoned to plead his cause before it. A safe-conduct was granted him by the Emperor; and on the 17th of April he presented himself before the august aristocracy of Germany. This audience gave occasion to the most splendid scene in his history. His friends were yet few, and of no great influence; his enemies were numerous, and powerful, and eager for his destruction: the cause of truth, the hopes of religious regeneration, appeared to be placed at that moment in the discretion and constancy of one man. The faithful trembled. But Luther had then cast off the encumbrances of early fears and prepossessions, and was prepared to give a free course to his earnest and unyielding character. His manner and expressions abounded with respect and humility; but in the matter of his public apology he declined in no one particular from the fulness of his conviction. Of the numerous opinions which he had by this time adopted at variance with the injunctions of Rome, there was not one which in the hour of danger he consented to compromise. The most violent exertions were made by the papal party to effect his immediate ruin; and there were some

who were not ashamed to counsel a direct violation of the imperial safe-conduct : it was designed to re-enact the crimes of Constance, after the interval of a century, on another theatre. But the infamous proposal was soon rejected ; and it was on this occasion that Charles is recorded to have replied with princely indignation, that if honour were banished from every other residence, it ought to find refuge in the breasts of kings.

Luther was permitted to retire from the diet ; but he had not proceeded far on his return when he was surprised by a number of armed men, and carried away into captivity. It was an act of friendly violence. A temporary concealment was thought necessary for his present security, and he was hastily conveyed to the solitary Castle of Wartenburg. In the mean time the assembly issued the declaration known in history as the “ Edict of Worms,” in which the Reformer was denounced as an excommunicated schismatic and heretic ; and all his friends and adherents, all who protected or conversed with him, were pursued by censures and penalties. The cause of papacy obtained a momentary, perhaps only a seeming triumph, for it was not followed by any substantial consequences ; and while the anathematized Reformer lay in safety in his secret *Patmos*, as he used to call it, the Emperor withdrew to other parts of Europe to prosecute schemes and interests which then seemed far more important than the religious tenets of a German Monk.

While Luther was in retirement, his disciples at Wittemberg, under the guidance of Carlostadt, a man of learning and piety, proceeded to put into force some of the first principles of the Reformation. They would have restrained by compulsion the superstition of private masses, and torn away from the churches the proscribed images. Luther disapproved of the violence of these measures ; or it may also be, as some impartial writers have insinuated, that he grudged to any other than himself the glory of achieving them. Accordingly, after an exile of ten months, he suddenly came forth from his place of refuge, and appeared at Wittemberg. Had he then confined his influence to the introduction of a more moderate policy among the reformers, many plausible arguments might have been urged in his favour. But he also appears, unhappily, to have been animated by a personal animosity against Carlostadt, which was displayed both then and afterwards in some acts not very far removed from persecution.

The marriage of Luther, and his marriage to a nun, was the event of his life which gave most triumph to his enemies, and perplexity to his friends. It was in perfect conformity with his masculine and daring mind, that having satisfied himself of the nullity of his monastic

vows, he should take the boldest method of displaying to the world how utterly he rejected them. Others might have acted differently, and abstained, either from conscientious scruples, or, being satisfied in their own minds, from fear to give offence to their weaker brethren ; and it would be presumptuous to condemn either course of action. It is proper to mention that this marriage did not take place till the year 1525, after Luther had long formally rejected many of the observances of the Roman Catholic Church ; and that the nun whom he espoused had quitted her convent, and renounced her profession some time before.

The war of the peasants, and the fanaticism of Munster and his followers, presently afterwards desolated Germany ; and the papal party did not lose that occasion to vilify the principles of the reformers, and identify the revolt from a spiritual despotism with general insurrection and massacre. It is therefore necessary here to observe, that the false enthusiasm of Munster was perhaps first detected and denounced by Luther ; and that the pen of the latter was incessantly employed in deprecating every act of civil insubordination. He was the loudest in his condemnation of some acts of spoliation by laymen, who appropriated the monastic revenues ; and at a subsequent period so far did he carry his principles, so averse was he, not only from the use of offensive violence, but even from the employment of force in the defence of his cause, that on some later occasions he exhorted the Elector of Saxony by no means to oppose the imperial edicts by arms, but rather to consign the persons and principles of the reformers to the protection of Providence. For he was inspired with a holy confidence that Christ would not desert his faithful followers ; but rather find means to accomplish his work without the agitation of civil disorders, or the intervention of the sword. That confidence evinced the perfect earnestness of his professions, and his entire devotion to the truth of his principles. It also proved that he had given himself up to the cause in which he had engaged, and that he was elevated above the consideration of personal safety. This was no effeminate enthusiasm, no passionate aspiration after the glory of martyrdom ! It was the working of the Spirit of God upon an ardent nature, impressed with the divine character of the mission with which it was intrusted, and assuréd, against all obstacles, of final and perfect success.

As this is not a history of the Reformation, but only a sketch of the life of an individual reformer, we shall at once proceed to an affair strongly, though not very favourably, illustrating his character. The subject of the Eucharist commanded, among the various doctrinal differences, perhaps the greatest attention ; and in this matter Luther receded but a short space, and with unusual timi-

dity, from the faith in which he had been educated. He admitted the real corporeal presence in the elements, and differed from the church only as to the manner of that presence. He rejected the actual and perfect change of substance, but supposed the flesh to subsist in, or with the bread, as fire subsists in red-hot iron. Consequently, he renounced the term transubstantiation, and substituted consubstantiation in its place. In the mean time, Zuinglius, the reformer of Zuric, had examined the same question with greater independence, and had reached the bolder conclusion, that the bread and wine are no more than external signs, intended to revive our recollections and animate our piety. This opinion was adopted by Carlostadt, Ocolampadius, and other fathers of the Reformation, and followed by the Swiss Protestants, and generally by the free cities of the Empire. Those who held it were called Sacramentarians. The opinion of Luther prevailed in Saxony, and in the more northern provinces of Germany.

The difference was important. It was felt to be so by the reformers themselves ; and the Lutheran party expressed that sentiment with too little moderation. The Papists, or Papalins (Papalini), were alert in perceiving the division, in exciting the dissension, and in inflaming it, if possible, into absolute schism ; and in this matter it must be admitted, that Luther himself was too much disposed by his intemperate vehemence to further their design. These discords were becoming dangerous ; and in 1529, Philip, Landgrave of Hesse, the most ardent among the protectors of the Reformation, assembled the leading doctors of either party to a public disputation at Marpurg. The particulars of this conference are singularly interesting to the theological reader ; but it is here sufficient to mention, without entering into the doctrinal merits of the controversy, that whatever was imperious in assertion and overbearing in authority, and unyielding and unsparing in polemical altercation, proceeded from the mouth and party of Luther ; that every approach to humility, and self-distrust, and mutual toleration, and common friendship, came from the side of Zuinglius and the Sacramentarians. And we are bound to add, that the same uncompromising spirit, which precluded Luther from all co-operation or fellowship with those whom *he thought* in error (it was the predominant spirit of the church which he had deserted) continued on future occasions to interrupt and even endanger the work of his own hands. But that very spirit was the vice of a character, which endured no moderation or concession in any matter wherein Christian truth was concerned, but which too hastily assumed its own infallibility in ascertaining that truth. Luther would have excommunicated the Sacramentarians ; and he did not

perceive how precisely his *principle* was the same with that of the church which had excommunicated himself.

Luther was not present at the celebrated Diet of Augsburg, held under the superintendence of Charles V. in 1530; but he was in constant correspondence with Melancthon during that fearful period, and in the reproofs which he cast on the temporizing, though perhaps necessary, negotiations of the latter, he at least exhibited his own uprightness and impetuosity. The 'Confession' of the Protestants, there published, was constructed on the basis of seventeen articles previously drawn up by Luther; and it was not without his counsels that the faith, permanently adopted by the church which bears his name, was finally digested and matured. From that crisis the history of the Reformation took more of a political, less of a religious character, and the name of Luther is therefore less prominent than in the earlier proceedings. But he still continued for sixteen years longer to exert his energies in the cause which was peculiarly his own, and to influence by his advice and authority the new ecclesiastical system.

He died in the year 1546, the same, as it singularly happened, in which the Council of Trent assembled, for the self-reformation and re-union of the Roman Catholic Church. But that attempt, even had it been made with judgment and sincerity, was then too late. During the twenty-nine years which composed the public life of Luther, the principles of the Gospel, having fallen upon hearts already prepared for their reception, were rooted beyond the possibility of extirpation; and when the great Reformer closed his eyes upon the scene of his earthly toils and glory, he might depart in the peaceful confidence that the objects of his mission were virtually accomplished, and the work of the Lord placed in security by the same heaven-directed hand which had raised it from the dust.



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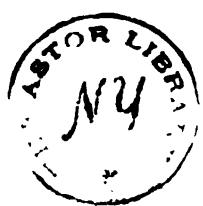
Extract by Express

Yale University Library
New Haven, Connecticut

Tom Cawelti has written
in his *Signs* edition of James' *Leaves*.

Under the heading "The Author's Note," he writes:

I am grateful to Mr. John H. Gaskins, of the Yale University Library, for permission to use the material in this note.



the capture of the valuable islands of Martinique, St. Lucia, and Grenada, bears testimony to the efficiency of the fleet under his orders, and the good understanding between the land and sea forces employed in this service. He was recalled on the conclusion of peace in 1763. Eight years elapsed before he was again called into service ; a period fruitful in marks of favour from the crown, though barren of professional laurels. He was created a Baronet soon after his return ; he was raised by successive steps to the rank of Vice-Admiral of the Red ; and he was appointed Governor of Greenwich Hospital. This office he was required to resign on being again sent out to the West Indies as Commander-in-Chief at Jamaica in 1771. This was a period of profound peace : but the duties of peace are often more difficult, and require more moral courage for their discharge, than those of war. It is one of Rodney's best claims to distinction, that he suffered none under his command, or within the sphere of his influence, to neglect their duties with impunity : and in the mode of carrying on naval affairs then practised in the West Indies, he found much ground for immediate interference, as well as for representation and remonstrance to his superiors at home. He earnestly desired to obtain the government of Jamaica ; but on a vacancy occurring in 1773, another person was appointed ; and he was recalled, and struck his flag at Portsmouth, September 4, 1774.

The next four years of Sir George Rodney's life were much harassed by pecuniary embarrassment. The habits of a sailor's life are proverbially unsuited to strict economy : and moving, when at home, in the most fashionable society of London, it is no wonder that his expenses outran his professional gains. He was compelled to retire to Paris, where he remained until the American war afforded a prospect of his being called into active service again. In May, 1778, he was promoted to the rank of Admiral of the White : but it was not till the autumn of 1779 that he was gratified by being re-appointed to the command on the Barbadoes station. He sailed from Plymouth December 29, to enter on the final and crowning scene of his glory.

At this time Spain and France were at war with England. The memorable siege of Gibraltar was in progress, and a Spanish fleet blockaded the Straits. The British navy was reduced unwarrantably low in point of disposable force ; and was farther crippled by a spirit of disunion and jealousy among its officers, arising partly perhaps from the virulence of party politics, and partly from the misconduct of the Admiralty, which threatened even worse consequences than the mere want of physical force. By this spirit Sir George Rodney's

fleet was deeply tainted, to his great mortification and the great injury of the country. At first, however, every thing appeared to prosper. The fleet consisted of twenty-two sail of the line, and eight frigates. Before Rodney had been at sea ten days, he captured seven Spanish vessels of war, with a large convoy of provisions and stores ; and on January 16, near Cape St. Vincent, afterwards made memorable by a more important action, he encountered a Spanish fleet commanded by Don Juan de Langara, of eleven ships of the line and two frigates. The superiority of the British force rendered victory certain. Five Spanish ships were taken, and two destroyed ; and had not the action been in the night, and in tempestuous weather, probably every ship would have been captured. These at least are the reasons which Rodney gave in his despatches, for not having done more : in private letters he hints that he was ill-supported by his captains. Trifling as this success would have seemed in later times, it was then very acceptable to the country ; and the Admiral received the thanks of both Houses of Parliament. The scandalous feeling of jealousy of their commander, ill-will to the ministry, or whatever other modification of party spirit it was, which could prevent brave men (and such they were) from performing their duty to the utmost in the hour of battle, broke out again with more violence when Rodney next came within sight of the enemy. This was near Martinique, April 17, 1780, about a month after his arrival in the West Indies. The French fleet, commanded by the Comte de Guichen, was slightly superior in force. Rodney's intention was to attack the enemy's rear in close order and with his whole strength ; but his captains disobeyed his orders, deranged his plan, and careless of the signals for close action, repeatedly made, kept for the most part at cautious distance from the enemy. His own ship, the Sandwich, engaged for an hour and a half a seventy-four and two eighty-gun ships, compelled them to bear away, and broke completely through the enemy's line. Not more than five or six ships did their duty. Had all done it, the victory over De Grasse might have been anticipated, and the end of the war accelerated perhaps by two years. In his despatches Rodney censured the conduct of his captains ; but the Admiralty thought proper to suppress the passage. In his private letters to Lady Rodney, he complains bitterly. One only of his captains was brought to trial, and he was broken. That ampler justice was not done on the delinquents, is to be explained by the difficulty of finding officers to form courts martial, where almost all were equally guilty. But this partial severity, with the vigorous measures which the Admiral took to recall others to their duty, pro-

duced due effect, and we hear no more of want of discipline, or reluctance to engage. For this action Rodney received the thanks of the House of Commons, with a pension for himself and his family of £2000 per annum.

Nothing of importance occurred during the rest of the spring ; and De Guichen having returned to Europe, Rodney sailed to New York, to co-operate, during the rainy season in the West Indies, with the British forces engaged in the American war. In November he returned to his station. In the course of the autumn he had been chosen to represent Westminster without expense, and had received the Order of the Bath. The commencement of the following year was signalized by acts of more importance. The British ministry had been induced to declare war against Holland ; and they sent out immediate instructions to Rodney, to attack the possessions of the states in the West Indies. St. Eustatius was selected for the first blow, and it surrendered without firing a shot. Small and barren, yet this island was of great importance for the support which it had long afforded to the French and Americans under colour of neutrality, and for the vast wealth which was captured in it. In the course of the spring, Demerara, Essequibo, and Berbice, with the French island of St. Bartholomew, were also taken.

In the autumn, Rodney returned to Europe for the recovery of his health. He was received with distinguished favour by the King, and with enthusiasm by the people, and during his stay, was created Vice-Admiral of Great Britain, in the place of Lord Hawke, deceased. He returned in the middle of January, being invested with the command of the whole West Indies, not merely the Barbadoes station, as before. The situation of affairs at this time was very critical. The French fleet, commanded by the Comte de Grasse, consisted of thirty-three sail* of the line, two fifty-gun ships and frigates, with a large body of troops, and a train of heavy cannon on board. A powerful Spanish fleet was also in the West Indies. It was intended to form a junction, and then with an overwhelming force of near fifty sail of the line, to proceed to Jamaica, conquer that important island, and one by one to reduce all the British colonies.

The French quitted Fort Royal Bay, in Martinique, April 8, 1782. Intelligence was immediately brought to the British fleet at St. Lucia, which lost no time in following them. In a partial action on the 9th, two of the French ships were disabled. A third was crippled by

* Or thirty-four, according to the official list found on board the Ville de Paris after the engagement.

accident on the night of the 11th. Thus, on the morning of the 12th, the decisive day, the French line was reduced to thirty or thirty-one ships, and numerically the British fleet was stronger: but this difference was more than compensated by the greater weight of metal in the French broadside, which was calculated by Sir Charles Douglas to have exceeded the British by 4396 pounds. On that morning, about seven o'clock, Rodney bore down obliquely on the French line, and passed to leeward of it on the opposite tack. His own ship was the eighteenth from the van: and the seventeen leading ships having pushed on and taken their position each abreast of an enemy, Rodney, in the *Formidable*, broke through the line between the seventeenth and eighteenth ships, engaged the *Ville de Paris*, De Grasse's flag-ship, and compelled her to strike. The battle was obstinately fought, and lasted till half-past six in the evening. The loss of the British in killed and wounded was severe, but disproportionately less than that of the French. Seven ships of the line and two frigates fell into the hands of the victors.

This battle ruined the power of the allied fleets in the West Indies, and materially contributed to the re-establishment of peace, which was concluded in January, 1783. Many other circumstances have combined to confer celebrity upon it. It restored to Britain the dominion of the ocean, after that dominion had been some time in abeyance; it proved the commencement of a long series of most brilliant victories, untarnished by any defeat on a large scale; and it was the first instance in which the manœuvre of breaking through the enemy's line, and attacking him on both sides, had been practised. The question to whom the merit of this invention, which for many years rested with Lord Rodney, is due, has of late been much canvassed before the public. It has been claimed for Mr. Clerk, of Eldin, author of a treatise on Naval Tactics, and for Sir Charles Douglas, Captain of the Fleet, who served on board the *Formidable*, and is said to have suggested it, as a sudden thought, during the action. The claim of Mr. Clerk appears now to be generally disallowed. The evidence in favour of each of the other parties is strong and conflicting; and as we have not space to discuss it, we may be excused for not expressing any opinion upon it. The claims of Sir Charles Douglas have been advanced by his son, Sir Howard Douglas, in some recent publications: the opposite side of the question has been argued in the *Quarterly Review*, No. 83. It has also been repeatedly discussed in the *United Service Magazine*. It would appear, however, at all events, that as the final judgment and responsibility rested with the Admiral, so

also should the chief honour of the measure : and it is certain that the gallant and generous officer for whom this claim has been advanced, rejected all praise which seemed to him in the least to derogate from the glory of his commanding officer.

A change of ministry had taken place in the spring ; and one of the first acts of the Whigs, on coming into office, was to recall Rodney, who had always been opposed to them in politics. The officer appointed to succeed him had but just sailed, when news of his decisive and glorious victory arrived in England. The Admiralty sent an express, to endeavour to recall their unlucky step ; but it was too late. Rodney landed at Bristol, and closed his career of service, September 21, 1782. He was received with enthusiasm, raised to the peerage by the title of Baron Rodney, and presented with an additional pension of £2000 per annum. From this time he lived chiefly in the country, and died May 23, 1792, in the seventy-fifth year of his age. He was twice married, and left a numerous family to inherit his well-earned honours and rewards.

The life of Lord Rodney, published by General Mundy, is valuable, as containing much of his official and private correspondence. The former proves that his views as a Commander-in-Chief were enlarged, judicious, and patriotic ; the latter is lively and affectionate, and shows him to have been most amiable in domestic life. Memoirs of his life and principal actions will be found in most works on naval history and biography.

JOSEPH LOUIS LAGRANGE was born at Turin, January 25th, 1736. His great-grandfather was a Frenchman, who entered into the service of the then Duke of Savoy ; and from this circumstance, as well as his subsequent settlement in France, and his always writing in their language, the French claim him as their countryman : an honour which the Italians are far from conceding to them.

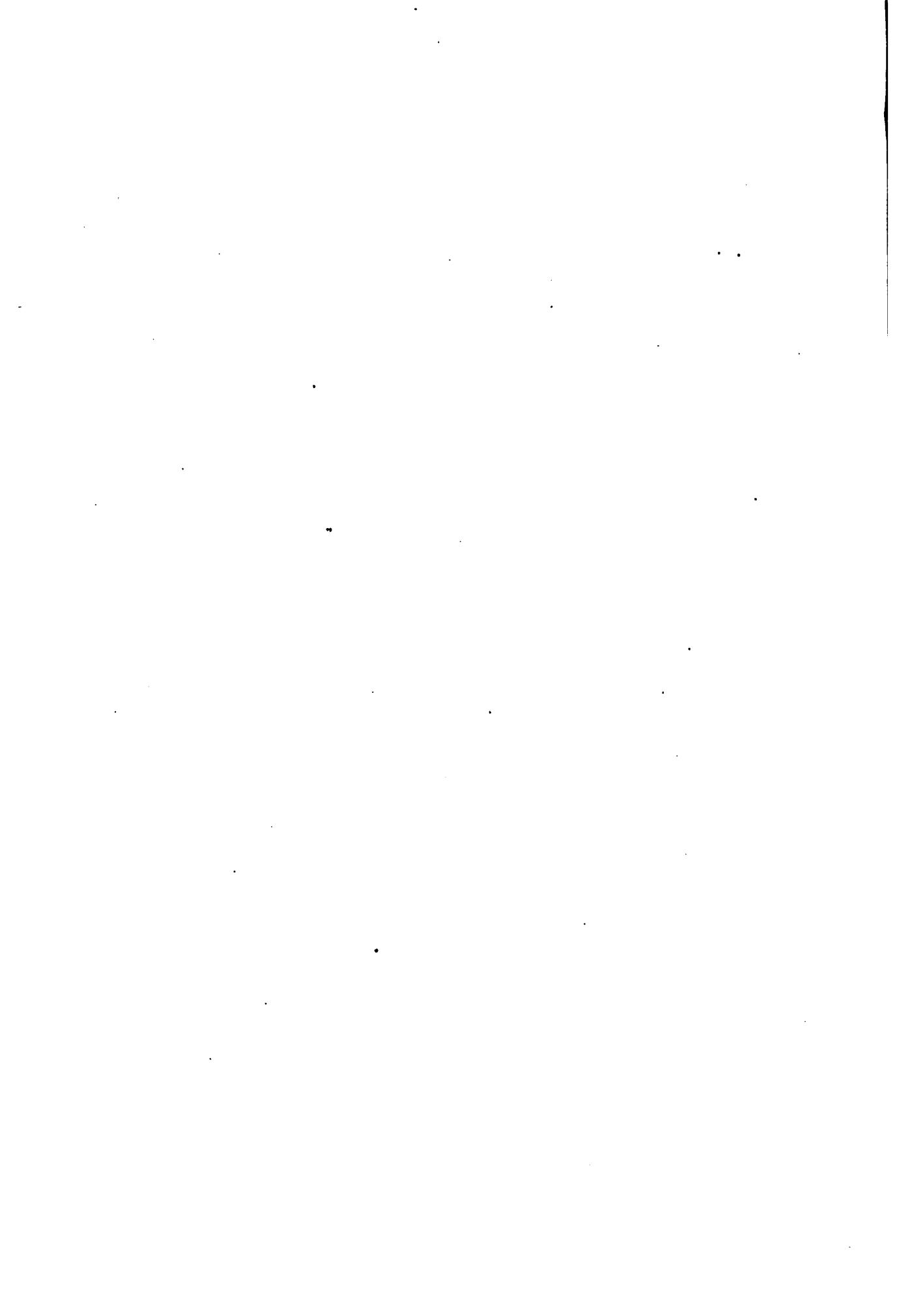
The father of Lagrange, luckily perhaps for the fame of his son, was ruined by some unfortunate speculation. The latter used to say, that had he possessed fortune, he should probably never have turned his attention to the science in which he excelled. He was placed at the College of Turin, and applied himself diligently and with enthusiasm to classical literature, showing no taste at first for mathematics. In about a year he began to attend to the geometry of the ancients. A memoir of Halley in the Philosophical Transactions, on the superiority of modern analysis, produced consequences of which the author little dreamed. Lagrange met with it, before his views upon the subject had settled: and immediately, being then only seventeen years old, applied himself to the study of the modern mathematics. Before this change in his studies, according to Delambre*, after it, according to others, but certainly while very young, he was elected professor at the Royal School of Artillery at Turin. We may best convey some notion of his early proficiency, by stating without detail, that at the age of twenty-three we find him—the founder of an Academy of Sciences at Turin, whose volumes yield in interest to none, and owe that interest principally to his productions,—a member of the Academy of Sciences at Berlin, an honour obtained through the medium of Euler, who shortly after announced him to Frederic of

* Eloge de Lagrange, Mémoires de l'Institut. 1812.



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John H. Bushhart

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It is important to note that the word "man" in this case refers to

John Edward Bushart and wife



Prussia as the fittest man in Europe to succeed himself,—and settling, finally, a most intricate question* of mathematics, which had given rise to long discussions between Euler and D'Alembert, then perhaps the two first mathematicians in Europe. He had previously extended the method of Euler for the solution of what are called *isoperimetrical problems*, and laid the foundation for the *Calculus of Variations*, the most decided advance, in our opinion, which any one has made since the death of Newton.

In 1764 he gained the prize proposed by the Academy of Sciences for an Essay on the Libration of the Moon ; and in 1766, that for an Essay on the Theory of the Satellites of Jupiter. In the former of these we find him, for the first time, using the *principle of virtual velocities*, which had hitherto remained almost a barren truth, but which he afterwards made, in conjunction with the principle known after the name of D'Alembert, the foundation of the whole of mechanical science.

In 1766, Euler, intending to return to St. Petersburg, resigned the situation which he held at the Court of Berlin, that of director of the physico-mathematical class of the Academy of Sciences. Frederic offered this place to D'Alembert, who refused it for himself, but joined with Euler in recommending Lagrange. The King of Prussia acceded to their suggestion, and Lagrange was invited to establish himself at Berlin, with a salary equivalent to 6,000 francs.

Lagrange remained at Berlin till after the death of Frederic. He here married a lady who was related to him, and who came from Turin at his request. She died after a lingering illness of several years, marked by the most unceasing attention on the part of her husband, who abandoned his pursuits to devote himself entirely to her during her illness. Nevertheless the period of his sojourn at Berlin is perhaps the brightest of a life, most years of which, from the age of eighteen to that of seventy, were sufficient to ensure a lasting reputation. He here laid the foundation of his Theory of Functions, of his general method for determining the secular variations of the planetary orbits ; and here he wrote his *Mécanique Analytique*.

At the death of Frederic, he found that science was no longer treated with the same respect at the Court of Berlin. He had found from the commencement of his stay there, that foreigners were looked upon with dislike, and his spirits had not recovered the loss of his wife. Many advantageous offers were made to him by different courts, and among the rest by that of France. Mirabeau, who was then at

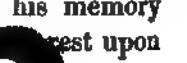
* The admissibility of discontinuous functions into the integrals of partial differential equations.

Berlin, first pointed out to the ministers of Louis XVI. the acquisition which was in their power. Lagrange removed to Paris in 1787, and remained there till his death.

He was then weary of his pursuits, and it is said that his *Mécanique Analytique*, which he had sent from Berlin to be printed in Paris, lay unopened by himself for more than two years after its publication in 1788. He employed himself in the study of ecclesiastical and other history, of medicine, botany, and metaphysics. When the discoveries of the chemists changed the theory and notation of their science, or rather created a science where none existed before, he threw himself upon the new study with avidity, and declared that they had made it easy; *as easy as algebra*.

In 1792, being then fifty-six years of age, he married Mlle. Lemonnier, daughter of the astronomer of that name, and daughter, granddaughter, and niece of members of the Academy of Sciences. This lady well deserves honourable mention in every memoir of Lagrange, for the affectionate care which she took of his declining years.

When, after the subversion of the monarchy, a commission was appointed to examine into the system of weights and measures, Lagrange was placed at its head. In this post he continued, not being included in the *purification*, which three months after its formation, deprived the commission of the services of Laplace, Coulomb, Brisson, Borda, and Delambre. He took no part in politics, and appears to have given no offence to any party; hence, when the government of Robespierre commanded all foreigners to quit France, an exception was made in his favour by the committee of public safety. All his friends had advised him to retire from the country; and the fate of Lavoisier and Bailly was sufficient to show that scientific talents of the most useful character were no protection. He now regretted that he had not followed their advice, and even meditated returning to Berlin. He did not, however, put this scheme in execution; and as the Normal and Polytechnic Schools were successively founded, he was appointed to professorships in both. His *Leçons*, delivered to the former institution, appear in their published series, and among them we find the *Leçons sur la Théorie des Fonctions*, which has since appeared as a separate work.

It is almost needless to say, so well as the public know how science was encouraged under the Consulate and the Empire, that Lagrange received from Napoleon every possible respect and distinction. The titles of senator, count of the empire, grand cordon of the legion of honour, &c. were given to him. It is also gratifying to be able to add that his abstinence from political engagements has left his memory unstained by such imputations as, we know not how  interest upon

that of Laplace. We might have omitted to state that he belonged to all the scientific academies of Europe; but that it is necessary, for the sake of the scientific reputation of this country, to correct an inadvertence into which the able author of the 'Life of Lagrange,' in the *Biographie Universelle*, appears to have fallen. He states that Lagrange was not a member of the Royal Society of London*. The fact is, that he was elected in 1798; and his name continued on the list of foreign members all the remainder of his life.

About the end of March, 1813; Lagrange was seized with a fever, which caused his death. He had previously been subject to fits of fainting, in the last of which he was found by Madame Lagrange, having fallen against the corner of a table. He preserved his senses to the last, and on the 8th of April conversed for more than two hours with M.M. Monge, Lacépède, and Chaptal, who were commissioned by the Emperor to carry him the grand cordon of the order of the *Réunion*. He then promised them, not thinking himself so near his end, full details of his early life. Unfortunately this promise remains unfulfilled, as he died on the 10th of April, in his seventy-eighth year. His father had died some years before him at the age of ninety-five; having had eleven children; all of whom, except the subject of this memoir, and one other, died young. Lagrange himself had no children. His private character, as all accounts agree in stating, was most exemplary. His manners were peculiarly mild, and though occasionally abstracted and absent, he was fond of society, particularly that of the young. In the earlier part of his life he was attacked in an unworthy manner by Fontaine, who at the same time boasted of some discovery which he attributed to himself. Lagrange replied with the urbanity which always accompanied his dealings with others; and while he overthrew the claim of his opponent, he repaid his incivility by the compliment of admitting that his talents were such as would have enabled him to attain the discovery; if it had not been previously made. Such moderation is rare, and as might be expected, it was accompanied by the utmost modesty in speaking of himself. In the latter half of his life, it would have been affectation in him to have denied his own powers, or spoken slightly of his own discoveries; nor do we find that he ever did so. In giving opinions or explanations, he broke off the moment he found that his ideas were not as clear or his knowledge as definite, as he had thought when he begun; concluding abruptly with *Je ne sais pas, Je ne sais pas*. Among his studies, music found a place; but, though pleased with the art, he used

* Les principales sociétés savantes de L'Europe, celle de Londres exceptée, s'empressèrent de décorer de son nom la liste de leurs membres.

to assert that he never heard more than three bars : the fourth found him wrapped in meditation, and by his own account, he solved very difficult problems in these circumstances. He would, therefore, as M. Delambre remarks, measure the beauty of a piece of music by the mathematical suggestions which he derived from it ; and his arrangement of the great masters would be not a little curious.

He never would allow a portrait of himself to be taken. A very well executed bust, which is now in the Library of the Institute, was made from a sketch by a young Italian artist, sent by the Academy of Turin. From this bust our portrait is engraved.

Of the character of Lagrange as a philosopher, no description, in so few words, can be better than that of M. Laplace : " Among the discoverers who have most enlarged the bounds of our knowledge, Newton and Lagrange appear to me to have possessed in the highest degree that happy tact, which leads to the discovery of general principles, and which constitutes true genius for science. This tact, united with a rare degree of elegance in the manner of explaining the most abstract theories, is the characteristic of Lagrange." This power of generalization distinguishes all that he has written, and the student of the *Mécanique Analytique* is amazed when he comes to a chapter headed " Equations Différentielles pour la solution de tous les problèmes de Dynamique," which, on examination, he finds equally applicable, and equally applied, to the vibrations of a pendulum or the motion of a planet. On the exquisite symmetry of his notation and style, we need not enlarge : the mathematician either is acquainted with it, or should become so with all speed ; and others will perhaps only smile at the notion of one set of algebraical symbols possessing more elegance or beauty than another.

The separate works of Lagrange are—1. *Mécanique Analytique*, the second edition of which he was engaged upon when he died ; the first edition was published in 1788. 2. *Théorie des Fonctions Analytiques*, a system of Fluxions on purely algebraical principles ; first edition, 1797 ; second edition, 1813. 3. *Leçons sur le Calcul des Fonctions* ; first published separately in 1806. 4. *Résolution des Equations numériques* ; three editions, in 1798, 1808, and 1826. To give only a list of his separate memoirs would double the length of this life : they will be found in the *Miscellanea Taurinensis*, tom. i.—v., and 1784—5 ; *Memoirs of the Berlin Academy*, 1765—1803 ; *Recueils de l'Académie des Sciences de Paris*, 1773—4, and tom. ix. ; *Mémoires des Savans Etrangers*, tom. vii. and x. ; *Mémoires de l'Institut*, 1808—9 ; *Journal de l'Ecole Polytechnique*, tom. ii. cahiers 5, 6, tom. viii. cahier 15 ; *Seances des Ecoles Normales* ; and *Connoissance des Temps*, 1814, 1817.

LACROIX

more than one or two
minutiae, and it is not
a true specimen;
the number of hairs
and width of head is
not equal to that in
a genuine *Lacryma*;
it is not in the habit
of having such a
peculiar aspect
as is a specimen of
true *Lacryma* which
has been in
the hands of
Dr. Lengyel; he
has written that
it is more to a
true *Lacryma* in
size and quality
than any other
specimen he
has seen.

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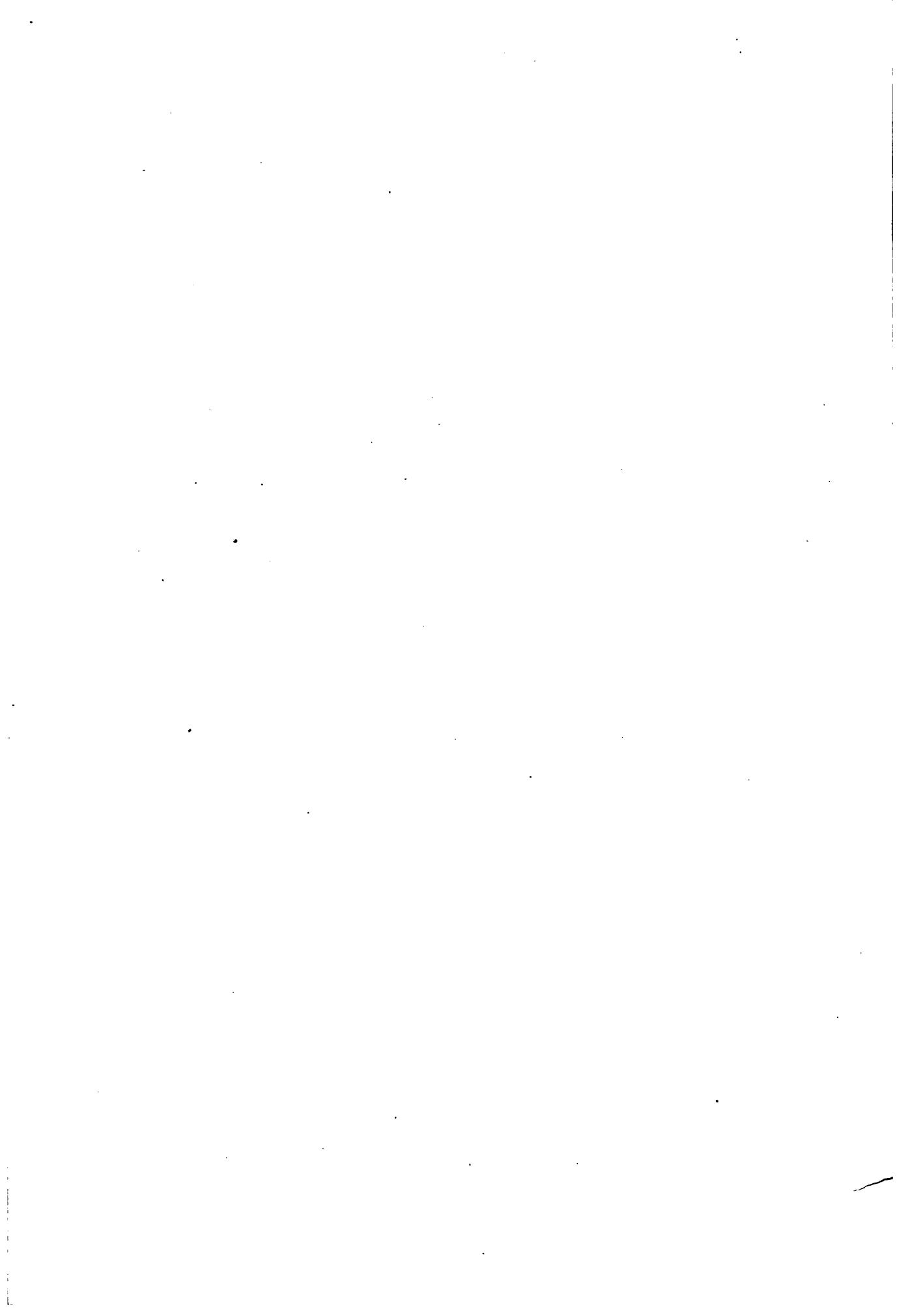
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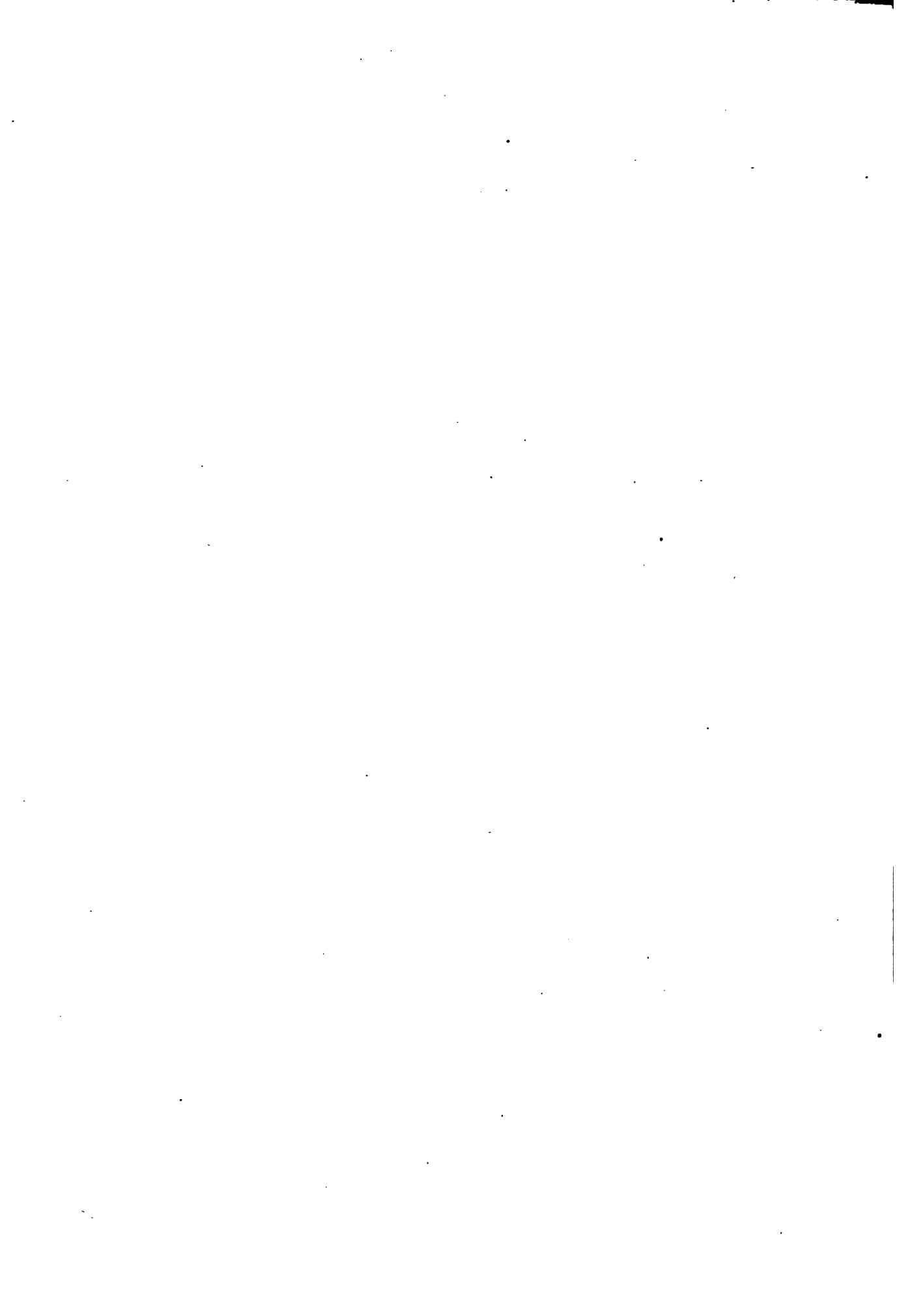
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FRANÇOIS MARIE AROUET, who is commonly known by his assumed name, De Voltaire, was born at Châtenay, near Sceaux, February 20, 1694. He soon distinguished himself as a child of extraordinary abilities. The Abbé de Châteauneuf, his godfather, took charge of the elements of his education, and laboured successfully to improve the talents of his ready pupil without much regard to his morals. At three years old the future champion of infidelity had learned by heart the *Moisade*, an irreligious poem of J. B. Rousseau. These lessons were not forgotten at college, where he passed rapidly through the usual courses of study, and alarmed his Jesuit preceptors by the undisguised licence of his opinions. About this time some of his first attempts at poetry obtained for him the notice of Ninon de l'Enclos; and when the Abbé de Châteauneuf, who had been the last in her long list of favourites, introduced him at her house, she was so pleased with the promising talents of the boy, that she left him by will a legacy of 2,000 francs to purchase books. The Ecole de Droit, where Arouet next studied, was much less suited to his disposition than the College of Louis le Grand. In vain his father urged him to undertake the drudgery of a profession: the Abbé was a more agreeable monitor, and under his auspices the young man sought with eagerness the best Parisian society. At the suppers of the Prince de Conti, he became acquainted with wits and poets, acquired the easy tone of familiar politeness, and distinguished himself by the delicacy of his flatteries, and the liveliness of his repartee. In 1713 he went to Holland as page to the French ambassador, the Marquis de Châteauneuf. This place had been solicited by his father in the hope of detaching him from dissipated habits. But little was gained by the

step, for in a short time he was sent back to his family, in consequence of an intrigue with a M^{me}. Du Noyer, whose mother, a Protestant refugee at the Hague, gained her living by scandal and libels, and on this occasion thought something might be got by complaining to the ambassador, and printing young Arouet's love-letters. He was, however, not easily discouraged. He endeavoured to interest the Jesuits in his affairs, by representing M^{me}. Du Noyer as a ready convert, whom it would be Catholic charity to snatch from the influence of an apostate mother. This manœuvre having failed, he sought a reconciliation with his father, who remained a long while implacable; but touched at last by his son's entreaties to be permitted to see him once more, on condition of leaving the country immediately afterwards for America, he consented to receive him into favour. Arouet again attempted legal studies, but soon abandoned them in disgust. The Regency had now commenced; and among the numerous satires directed against the memory of Louis XIV., one was attributed to him. The report caused him a year's imprisonment in the Bastille. Soon afterwards he changed the name of Arouet for that of Voltaire. "I have been unhappy," he said, "so long as I bore the first: let us see if the other will bring better fortune." It seemed indeed that it did so, for in 1718 the tragedy of *Œdipe* was represented, and established the reputation of its author. It had been principally composed in the Bastille, where he also laid the foundation of his *Henriade*, which occupied the time he could spare from amorous and political intrigue, until 1724. Desiring to publish it, he submitted the poem to some select friends, men of severe taste, who met at the house of the President de Maisons. They found so many faults that the author threw the manuscript into the fire. The President Hénault rescued it with difficulty, and said, "Young man, your haste has cost me a pair of best lace ruffles: why should your poem be better than its hero, who was full of faults, yet none of us like him the worse?" Surreptitious copies spread rapidly, and gained for the author much both of celebrity and envy. But it displeased two powerful classes: the priests were apprehensive of its religious, the courtiers of its political, tendency; insomuch that the publication was prohibited by government, and the young king refused to accept the dedication. Soon after this, Voltaire was sent again to the Bastille, in consequence of a quarrel with the Chevalier de Rohan: and on his liberation, he was banished to England. There he remained three years, perhaps the most important era of his life, for it gave an entirely new direction to his lively mind. Hitherto a wit, and a writer of agreeable verse, he became in England a philosopher. Returning to France in 1726, he

brought with him an admiration of our manners, and a knowledge of our best writers, which visibly influenced his own compositions and those of his contemporaries. He now published several poetical and dramatic pieces with variable success ; but he was more than once forced to quit Paris by the clamour and persecution of his enemies. After the failure of one of his plays, Fontenelle and some other literary associates seriously advised him to abandon the drama, as less suited to his talent than the light style of fugitive poetry in which he had uniformly succeeded. He answered them by writing *Zaire*, which was acted with great applause in 1732. He had already published his history of Charles XII.: that of Peter the Great was written much later in life. The *Lettres Philosophiques*, secretly printed at Rouen, and rapidly circulating, increased his popularity, and the zeal of his enemies. This work was burnt by the common hangman. About this time commenced that celebrated intimacy with Emilie Marquise du Châtelet, which for nearly twenty years stimulated and guided his genius. Love made him a mathematician. In the studious leisure of Cirey, under the auspices of "la sublime Emilie," he plunged himself into the most abstract speculations, and acquired a new title to fame by publishing the *Elements of Newton* in 1738, and contending for a prize proposed by the Academy of Sciences. At the same time he produced in rapid succession *Alzire*, *Mahomet*, and *Merope*. His fame was now become European. Frederic of Prussia, Stanislaus, and other sovereigns honoured him, or were honoured by his correspondence. But the perpetual intrigues of his enemies at home deprived him of repose, and even at Cirey he was not always free from troubles and altercations. Upon the death of Madame du Châtelet, in 1749, he accepted the often urged invitation of Frederic, and took up his residence at the Court of Berlin. But the friendship of the king and the philosopher was not of long duration. A violent quarrel with the geometrician, Maupertuis, who was also living under the protection of Frederic, ended, after some ineffectual attempts at accommodation, in Voltaire's departure from Frederic's society and dominions (1753). He had just published his *Siècle de Louis XIV.*, which was shortly followed by the *Essai sur les Mœurs*. After a few more wanderings, for the versatility of his talent seemed to require a corresponding variety of abode, Voltaire finally fixed himself at Ferney, near Geneva, in the sixty-fifth year of his eventful life, and began to enjoy at leisure his vast reputation. From all parts of Europe strangers undertook pilgrimages to this philosophic shrine. Sovereigns took pride in corresponding with the Patriarch, as he was called by the numerous sect of free-thinkers, and self-styled

philosophers, who looked up to him as their teacher and leader. The Society of Philosophers at Paris, now employed in their great work, the Encyclopædia, which, from the moment of its ill-judged prohibition by the government had assumed the character of an antichristian manifesto, looked up to Voltaire as the acknowledged chief of their party. He furnished some of the most important articles in the work. His whole mind seemed now to be bent on one object, the subversion of the Christian religion. Innumerable miscellaneous compositions, different in form, and generally anonymous, indeed often disavowed, were marked by this pernicious tendency. "I am tired," he is reported to have said, "of hearing it repeated that twelve men were sufficient to found Christianity: I will show the world that *one* is sufficient to destroy it!" Half a century has elapsed, and the event has not justified the truth of this boast: he mistook his own strength, as many other unbelievers have done. These impious extravagances were not, however, the only occupation of the twenty years which intervened between Voltaire's establishment at Ferney and his death. In the defence of Sirven, Lally, Labarre, Calas, and others, who at several times were objects of unjust condemnation by the judicial tribunals, he exerted himself with a zeal as indefatigable as it was meritorious. Ferney, under his protection, grew to a considerable village, and the inhabitants learned to bless the liberalities of their patron. His mind continued to be embittered by literary quarrels, the most memorable being that with J. J. Rousseau, commemorated in his poem, entitled 'Guerre Civile de Genève' (1768). He hated this unfortunate exile, as a rival, as an enthusiast, and as a friend, comparatively speaking, to Christianity. Nor were these his only disquietudes. The publication of the infamous poem of La Pucelle, which he suffered in strict confidence to circulate among his intimate friends, and which was printed by the treachery of some of them, gave him much uneasiness. For its indecency and impiety he might not have cared: but all who had offended him, authors, courtiers, even the king and his mistress, were abused in it in the grossest manner, and Voltaire had no wish to provoke the arm of power. He had recourse to his usual process of disavowal, and as he could not deny the whole, he asserted that the offensive parts had been intercalated by his enemies. In other instances his zeal outran discretion, and affected his comforts by producing apprehension for his safety. Sometimes a panic terror of assassination took possession of him, and it needed all the gentleness and assiduities of his adopted daughter, Madame de Varicourt, to whom he was tenderly attached, to bring back his usual levity of mind. At length, in 1778, Voltaire yielding to the entreaties of his

favourite niece, Madame Denis, came to Paris, where at the theatre he was greeted by a numerous assemblage in a manner resembling the crowning of an Athenian dramatic poet, more than any modern exhibition of popular favour. borne back to his hotel amidst the acclamations of thousands, the aged man said feebly, " You are suffocating me with roses." He did not indeed long survive this festival. Continued study, and the immoderate use of coffee, renewed a stranguary to which he had been subject, and he died May 30, 1778. He was interred with the rites of Christian worship, a point concerning which he had shown some solicitude, in the Abbaye de Scellières. In 1791 his remains were removed by the Revolutionists, and deposited with great pomp in the Pantheon.

It is difficult within our contracted limits to give an accurate character of Voltaire. In versatility of powers, and in variety of knowledge, he stands unrivalled : but he might have earned a better and more lasting name, had he concentrated his talents and exertions on fewer subjects, and studied them more deeply. It has been truly and wittily observed that " he *half knew* every thing, from the cedar of Lebanon to the hyssop on the wall; and he wrote of them all, and laughed at them all." Of the feeling of veneration, either for God or man, he seems to have been incapable. He thought too highly of himself to look up to any thing. Capricious, passionate, and generally selfish, he was yet accessible to sudden impulses of generosity. He was an acute rather than a subtle thinker. Perhaps in the whole compass of his philosophical works there is not to be found one original opinion, or entirely new argument ; but no man ever was endowed with so happy a facility for illustrating the thoughts of others, and imparting a lively clearness to the most abstruse speculations. He brought philosophy from the closet into the drawing-room. Eminently skilled to detect and satirize the faults and follies of mankind, his love of ridicule was too strong for his love of truth. He saw the ludicrous side of opinions in a moment, and often unfortunately could see nothing else. His alchymy was directed towards transmuting the imperfect metals into dross. All enthusiasm, eagerness of belief, magnifying of probabilities through the medium of excited feeling, all that makes a sect as well in its author as its followers, these things were simply foolish in his estimation. It is impossible to gather from his works any connected system of philosophy : they are full of contradictions ; but the pervading principle which gives them some form of coherence is a rancorous aversion to Christianity. As a Deist believing in a God, " *rémunérateur vengeur*," but proscribing all established worship, Voltaire occupies a middle position

between Rousseau on the one hand, who, while he avowed scepticism as to the proofs, professed reverence for the characteristics of Revealed Religion, and Diderot on the other, with his fanatical crew of Atheists, who laughed not without reason at their Patriarch of Ferney, for imagining that he, whose life had been spent in trying to unsettle the religious opinions of mankind, could fix the point at which unbelief should stop. The dramatic poems of Voltaire retain their place among the first in their language, but his other poetical works have lost much of the reputation they once enjoyed. He paints with fidelity and vividness the broad lineaments of passion, and excels in that light, allusive style, which brings no image or sentiment into strong relief, and is therefore totally unlike the analytic and picturesque mode of delineation, to which in this country, and especially in this age, we are apt to limit the name and prerogatives of imagination. As a novelist, he has seldom been equalled in wit and profligacy. As an historian, he may be considered one of the first who authorized the modern philosophizing manner, treating history rather as a reservoir of facts for the illustration of moral science, than as a department of descriptive art. He is often inaccurate, and seldom profound, but always lively and interesting. On the whole, however the general reputation of Voltaire may rise or fall with the fluctuations of public opinion, he must continue to deserve admiration as

"The wonder of a learned age ; the line
Which none could pass ; the wittiest, clearest pen ;
The voice most echoed by consenting men ;
The soul, which answered best to all well said
By others, and which most requital made."—CLEVELAND.



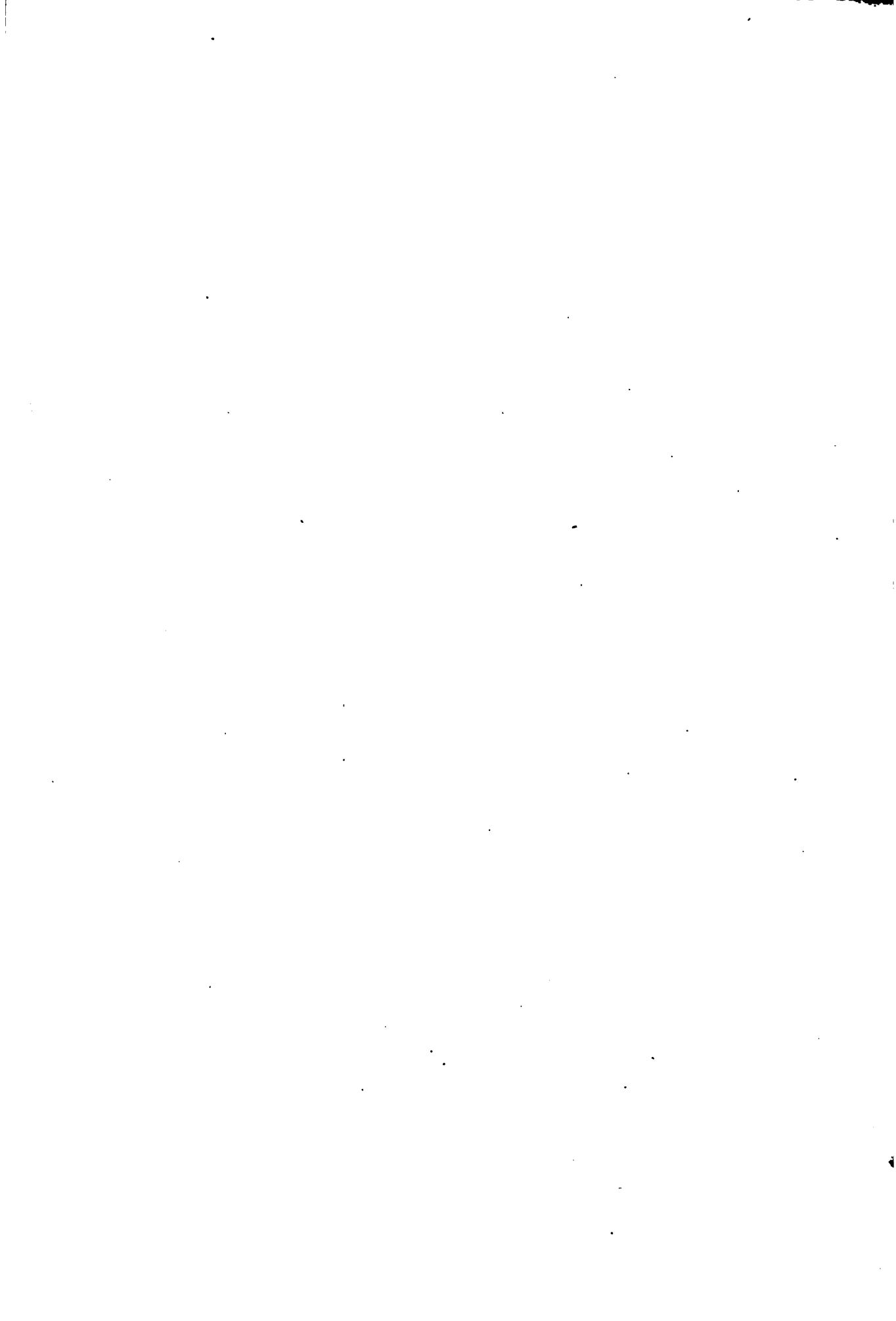
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NOTES

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1900



THE father of this great painter was a magistrate of Antwerp, who, during the desperate struggle of the Netherlands to shake off the dominion of Spain, retired from his own city to Cologne, to escape from the miseries of war. There, in the year 1577, Peter Paul Rubens was born. At an early age he gave indications of superior abilities, and his education was conducted with suitable care. The elder Rubens returned to Antwerp with his family, when that city passed again into the hands of Spain. It was the custom of that age to domesticate the sons of honourable families in the houses of the nobility, where they were instructed in all the accomplishments becoming a gentleman: and in conformity with it, young Rubens entered as a page into the service of the Countess of Lalain. The restraint and formality of this life ill suited his warm imagination and active mind: and on his father's death, he obtained permission from his mother to commence his studies as a painter under Tobias Verhaecht, by whom he was taught the principles of landscape painting, and of architecture. But Rubens wished to become an historical painter, and he entered the school of Adam Van Oort, who was then eminent in that branch of art. This man possessed great talents, but they were degraded by a brutal temper and profligate habits, and Rubens soon left him in disgust. His next master was Otho Van Veen, or Venius, an artist in almost every respect the opposite of Van Oort, distinguished by scholastic acquirements as well as professional skill, of refined manners, and amiable disposition. Rubens was always accustomed to speak of him with great respect and

affection, nor was it extraordinary that he should have conceived a cordial esteem for a man whose character bore so strong a resemblance to his own. From Venius, Rubens imbibed his fondness for allegory ; which, though in many respects objectionable, certainly contributes to the magnificence of his style. In 1600, after having studied four years under this master, he visited Italy, bearing letters of recommendation from Albert, governor of the Netherlands, by whom he had already been employed, to Vincenzio Gonzaga, duke of Mantua. He was received by that prince with marked distinction, and appointed one of the gentlemen of his chamber. He remained at Mantua two years, during which time he executed several original pictures, and devoted himself attentively to the study of the works of Giulio Romano.

In passing through Venice, Rubens had been deeply impressed with the great works of art which he saw there. He had determined to revisit that city on the first opportunity, and at length obtained permission from his patron to do so. In the Venetian school his genius found its proper aliment; but it is perhaps to Paul Veronese that he is principally indebted. He looked at Titian, no doubt, with unqualified admiration; but Titian has on all occasions, a dignity and sedateness not congenial to the gay temperament of Rubens. In Paul Veronese he found all the elements of his subsequent style ; gaiety, magnificence, fancy disdainful of restraint, brilliant colouring, and that masterly execution by which an almost endless variety of objects are blended into one harmonious whole. Three pictures painted for the church of the Jesuits immediately after his return to Mantua, attested how effectually he had prosecuted his studies at Venice. He then developed those powers which afterwards established his reputation, and secured to him a distinction which he still holds without a competitor, that of being the best imitator, and most formidable rival of the Venetian school.

Rome, with its exhaustless treasures of art, was still before him, and he was soon gratified with an opportunity of visiting that capital. The Duke of Mantua wished to obtain copies of some of the finest pictures there, and he engaged Rubens to make them, with the double motive of availing himself of his talents and facilitating his studies. This task was doubtless rendered light to Rubens, as well by gratitude towards his patron as by his own great facility of execution. In this respect Sir J. Reynolds considers him superior to all other painters ; and says that he was “ perhaps the greatest master in the mechanical part of his art, the best workman with his tools, that ever

handled a pencil." He executed for the Duke copies of several great works, which could scarcely be distinguished from the originals. Among his own compositions, painted while at Rome, the most conspicuous are three in the church of S. Croce in Gerusalemme, two of which, Christ bearing the Cross, and the Crucifixion, are considered to rank among his finest productions. There is also, in the Campidoglio, a picture painted by him at this time, of the finding of Romulus and Remus, a work of remarkable spirit and beauty.

Rubens, however, had formed his style at Venice, and was not induced by the contemplation of the great works at Rome to alter it in any essential particular. It is not thence to be inferred that he was insensible to the wonders which surrounded him at Rome; that he did not appreciate the epic sublimity of Michael Angelo, the pure intelligence of Raphael; his admiration of ancient sculpture is attested by his written precepts. Of the antique, certainly, no trace of imitation is to be found in his works; but perhaps the bold style of design, which he had adopted in opposition to the meagre taste of his German predecessors, was confirmed by the swelling outlines of Michael Angelo. If he imitated Raphael in any thing, it was in composition; and if in that great quality of art he has any superior, it is in Raphael alone.

The opinion which the Duke of Mantua had formed of Rubens's general powers was now evinced in an extraordinary manner. Having occasion, in 1605, to send an envoy to Spain, he selected Rubens for the purpose, and directed him to return immediately from Rome to Mantua, in order to set out on his embassy. The young artist succeeded equally well as a diplomatist, and as a painter. He executed a portrait of the King, who honoured him with flattering marks of distinction, and he fully accomplished the object of his mission. Shortly after his return to Mantua he revisited Rome, where he contributed three pictures to the church of S. Maria in Vallicella. In these the imitation of Paul Veronese is particularly conspicuous. He next went to Genoa, where he executed several important works, and was regarded in that city with an interest and respect commensurate to his high reputation. In the midst of this splendid career, Rubens received intelligence that his mother, from whom he had been absent eight years, lay dangerously ill. He hastened to Antwerp, but she had expired before his arrival. The death of this affectionate parent afflicted him so severely, that he determined to quit a city fraught with painful associations, and to take up his future residence in Italy. But the Duke Albert, and the Infanta Isabella, being anxious to

retain him in their own territory, he was induced to relinquish his intention, and finally settled at Antwerp.

There he continued to practise during several years, and enriched Europe, the Low Countries especially, with a surprising number of pictures almost uniform in excellence. His style, indeed, with all its admirable qualities, was one in which the delicacies of form and expression were never allowed to stand in the way of despatch. His mode of working was to make small sketches, slightly but distinctly; these were delivered to his scholars, who executed pictures from them on a larger scale, which they carried forward almost to the final stage, at which Rubens took them up himself. Thus his own labour was given only to invention and finishing, the only parts of the art in which the painter's genius is essentially exercised. Wherever his works were dispersed, the demand for them increased, and fortune poured in on him in a golden flood. Rubens's mode of living at Antwerp was the *beau idéal* of a painter's existence. His house was embellished with such a collection of works of art, pictures, statues, busts, vases, and other objects of curiosity and elegance, as gave it the air of a princely museum. In the midst of these he pursued his labours, and it was his constant practice while painting to have read to him works of ancient or modern literature in various languages. It is a strong testimony to the variety of his powers, and the cultivation of his mind, that he was well skilled in seven different tongues. His splendid establishment comprehended a collection of wild beasts, which he kept as living models for those hunting pieces, and other representations of savage animals, which have never been surpassed. Such talents and such success could not fail of exciting envy; a cabal headed by Schut, Jansens, and Rombouts, endeavoured to detract from his reputation, and it is amusing to find him accused, among other deficiencies, of wanting invention! His great picture of the Descent from the Cross, painted for the Cathedral of Antwerp, and exhibited while the outcry against him was at its height, effectually allayed it. Snyders and Wildens were answered in a similar manner. They had insinuated that the chief credit of Rubens's landscapes and animals was due to their assistance. Rubens painted several lion and tiger hunts, and other similar works, entirely with his own hand, which he did not permit to be seen until they were completed. In these works he even surpassed his former productions; they were executed with a truth power, and energy, which excited universal astonishment, and effectually put his adversaries to silence. Rubens condescended to give no other reply to his calumniators; and he showed his own goodness of

heart, by finding employment for those among them whom he understood to be in want of it.

In 1628 he was commissioned by Mary de Medici, Queen of France, to adorn the gallery of the Luxembourg with a set of pictures, twenty-four in number, illustrative of the events of her life. Within three years he completed this magnificent series, in which allegory mingles with history, and the immense variety of actors, human and superhuman, with appropriate accompaniments, lays open a boundless field to the imagination of the artist. The largest of these pictures, which is the Coronation of Mary de Medici, combines with the gorgeous colouring proper to the subject, a correctness and chastity of design seldom attained by Rubens, and is consequently an example of that high excellence which might be expected from his style when divested of its imperfections. The gallery of the Luxembourg, as long as it possessed those ornaments, was considered one of the wonders of Europe. The pictures are now removed to the Louvre, and are seen perhaps with diminished effect, among the mass of miscellaneous works with which they are surrounded.

The two last of the Luxembourg series Rubens finished in Paris. On his return to the Netherlands his political talents were again called into requisition, and he was despatched by the Infanta Isabella to Madrid, to receive instructions preparatory to a negotiation for peace between Spain and England. Philip IV., and the Duke de Olivarez, his minister, received him with every demonstration of regard, nor did they neglect to avail themselves of his professional skill. The King engaged him to paint four pictures of large dimensions for the Convent of Carmelites, near Madrid, recently founded by Olivarez, to whom Philip presented those magnificent works. The subjects were the Triumph of the New Law, Abraham and Melchizedec, the four Evangelists, and the four Doctors of the Church, with their distinctive emblems. He also painted a series of pictures for the great Saloon of the Palace at Madrid, which represent the Rape of the Sabines, the Battle between the Romans and Sabines, the Bath of Diana, Perseus and Andromeda, the Rape of Helen, the Judgment of Paris, and the Triumph of Bacchus. The Judgment of Paris is now in the possession of Mr. Penrice, of Great Yarmouth, and may be considered one of the finest of Rubens's smaller pictures ; the figures being half the size of life. The King rewarded him munificently, and conferred on him the honour of knighthood.

Rubens returned to Flanders in 1627, and had no sooner rendered an account of his mission to the Infanta, than he was sent by that

princess to England in order to sound the Government on the subject of a peace with Spain, the chief obstacle to which had been removed by the death of the Duke of Buckingham. It is probable that Rubens's extraordinary powers as an artist formed one motive for employing him in those diplomatic functions. The monarchs to whose courts he was sent were passionate admirers of art; and the frequent visits which they made to Rubens in his painting room, and the confidence with which they honoured him, gave him opportunities, perhaps, in his double capacity, of obviating political difficulties, which might not otherwise have been so easily overcome. This was certainly the case in his negotiations with Charles I. He was not, it appears, formally presented in the character of an envoy. But the monarch received him with all the consideration due to his distinguished character; and it was while he was engaged on the paintings at Whitehall, the progress of which the King delighted to inspect, that he disclosed the object of his visit, and produced his credentials. This he did with infinite delicacy and address; and the King was by no means indisposed to listen to his proposals. A council was appointed to negotiate with him on the subject of a pacification, which was soon after concluded. It was on this occasion that Rubens painted and presented to the King the picture of Peace and War, which is now in our National Gallery. The relation of that work to the object of his mission is obvious: the blessings of peace in contradistinction to the miseries of war are beautifully illustrated; and whether Rubens paid this compliment to the King while his negotiations were in progress, or after they were terminated, a more elegant and appropriate gift was never addressed by a minister to a monarch. The painter was splendidly remunerated, and honoured with knighthood by Charles in 1630. The object of his mission being happily accomplished, he returned to the Netherlands, where he was received with the distinction due to his splendid genius and successful services.

His various and incessant labours appear to have prematurely broken his constitution; he had scarcely attained his fifty-eighth year when he was attacked by gout with more than usual severity. This painful disease was succeeded by a general debility, which obliged him to desist from the execution of large works, to relinquish all public business, and even to limit his correspondence to his particular friends, and a few distinguished artists. His letters, however, when he touches on the subject of art, rise into a strain of animated enthusiasm. He continued to work, but chiefly on small subjects, till the year

1640, when he died at the age of sixty-three. He was interred with great splendour in the church of St. James, under the altar of his private chapel, which he had ornamented with one of his finest pictures. A monument was erected to his memory by his widow and children, with an epitaph descriptive of his distinguished talents, the functions he had filled, and the honours with which he had been rewarded.

In extent of range the pencil of Rubens is unrivalled. History, portrait, landscape under the aspect of every season, animal life in every form, are equally familiar to him. His hunting pieces especially, wherein lions, tigers, and other wild animals, with men, dogs, and horses, are depicted under all the circumstances of fierce excitement, momentary action, and complicated foreshortenings, are wonderful. Rubens wanted only a purer style in designing the human figure, to have been a perfect, as well as a universal painter. His taste in this particular is singularly unlike that which the habits of his life seemed likely to produce. He had been bred up in scenes of courtly elegance, and he was acquainted with whatever was beautiful in art; yet his conception of character, especially in relation to feminine beauty, betrays a singular want of refinement. His goddesses, nymphs, and heroines are usually fat, middle-aged ladies, sometimes even old and ugly; and they always retain the peculiarities of individual models. His men too, though not without an air of portly grandeur, want mental dignity. Faults of such magnitude would have ruined the fame of almost any other painter; but while the pictures of Rubens are before us, it is hard to criticise severely their defects. If, as a colourist, he is inferior to Titian, it is, perhaps, rather in kind than in degree: Titian's colouring may be compared to the splendour of the summer sun; that of Rubens excites the exhilarating sensations of a spring morning. It is true that the artifice of his system is sometimes too apparent, whereas, in Titian, it is wholly concealed; Rubens, however, painted for a darker atmosphere, and adapted the effect of his pictures to the light in which they were likely to be seen. Inferior to Raphael in elegance and purity of composition, he competes with him in fertility and clearness of arrangement. He drew from Paul Veronese a general idea of diffused and splendid effect, but he superadded powers of pathos and expression, to which that artist was a stranger. It is, as Reynolds justly observes, only in his large works that the genius of Rubens is fully developed; in these he appears as the Homer of his art, dazzling and astonishing with poetic conception, with grandeur, and energy, and executive power.

Of Rubens's personal character we may speak in terms of high praise. He bore his great reputation without pride or presumption ; he was amiable in his domestic relations, courteous and affable to all. He was the liberal encourager of merit, especially in his own art, and he repaid those among his contemporaries who aspersed him, by endeavouring to serve them. His own mind was uncontaminated by envy, for which perhaps little credit will be given him, conscious, as he must have been, of his own most extraordinary endowments. His noble admission, however, of Titian's superiority, when he copied one of his works at Madrid, attests the magnanimity of his disposition ; and his almost parental kindness to his pupil, Vandyke, shows that he was equally willing to recognize the claims, and to promote the success of living genius.

Rubens's greatest works are at Antwerp, Cologne, Paris, Munich, and Madrid. The paintings at Whitehall might have formed a noble monument of his powers, but they have suffered both from neglect and reparation. There are smaller works of his in the National Gallery, the Dulwich Gallery, and in almost every private collection in this country.

The best memoir of Rubens with which we are acquainted is in *La Vie des Peintres Flamands*, par Descamps. Notices may also be found in the *Abrégé de la Vie des Peintres*, par De Piles. There is an English life in Bryan's *Dictionary of Painters*.

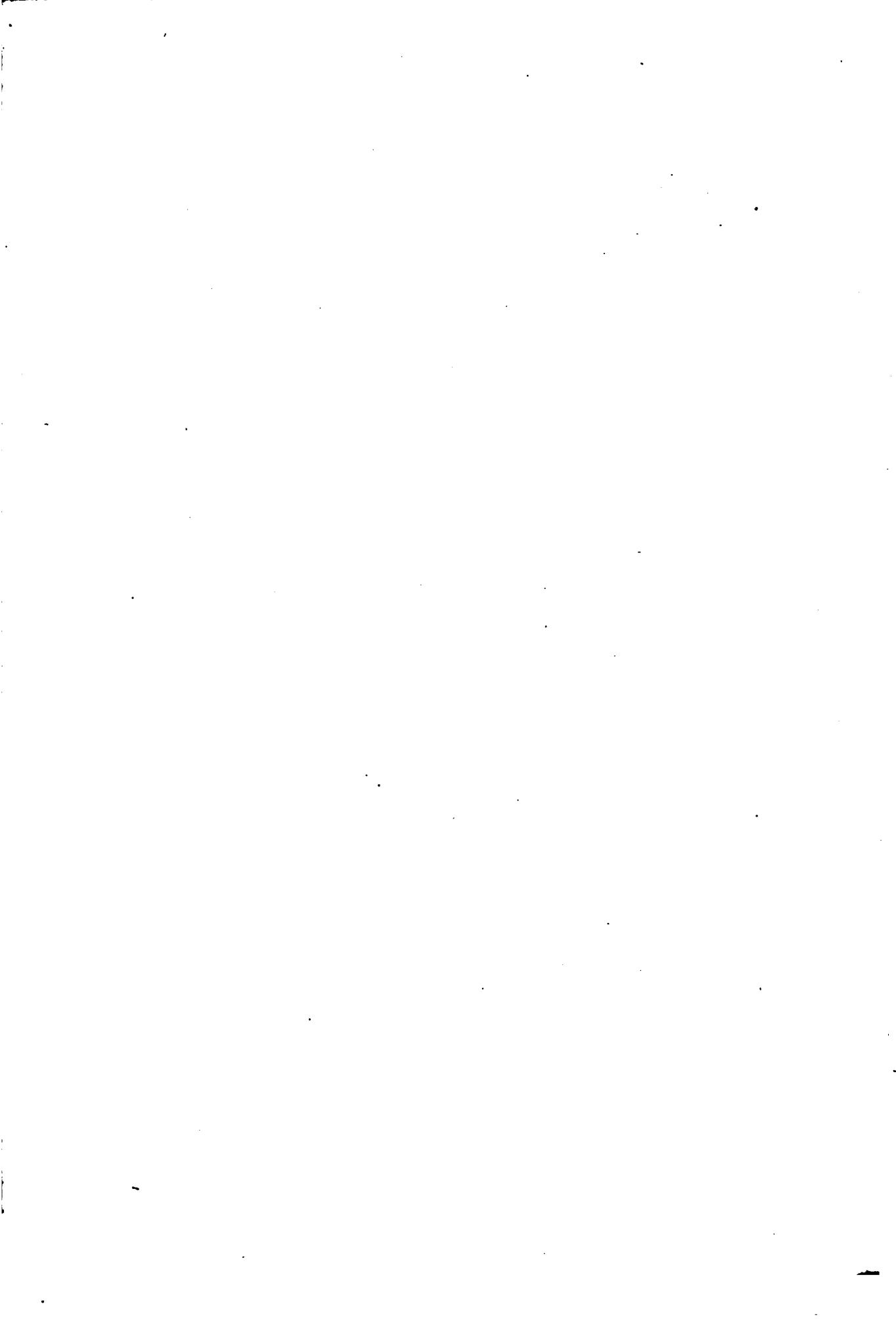


Entrance to Rubens' Garden, from a design by himself.



1000' 1000'

1000' 1000'
1000' 1000'





THE name of Du Plessis was borne by an ancient family of Poitou, which subsequently acquired by marriage the property and title of Richelieu. François Du Plessis was attached to King Henry III. while he was yet Duke of Anjou ; accompanied him when he became King of Poland ; and was made Grand Provost of his Court, after his accession to the throne of France. In this capacity he arrested the followers of Guise, when that duke was assassinated at Blois, in 1588.

Armand Jean Du Plessis, the future cardinal, was the third son of this dignitary, and was born on the 5th of September, 1585, at Paris, say his biographers, Aubery and Leclerc ; whilst tradition claims this honour for the family château in Poitou. He received the elements of education at home, from the Prior of St. Florent ; but soon quitted the paternal mansion, first for the College of Navarre, subsequently for that of Lisieux. From thence he removed to a military academy, being intended for the profession of arms. But on his brother, who was Bishop of Luçon, resolving to quit the world for the cloister, young Armand was advised to abandon the sword for the gown, in order that he might succeed to his brother's bishopric.

He adopted the advice, entered with zeal into the study of theology, and soon qualified himself to pass creditably through the exercises necessary to obtain the degree of Doctor in Theology. He already wore the insignia of his bishopric. But the Pope's sanction was still wanting, and was withheld on account of the extreme youth of the expectant. Resolved to overcome this difficulty, he set off to Rome, addressed the Pontiff in a Latin oration, and gave such proofs of talent

and acquirements above his age, that he was consecrated at Rome on the Easter of 1607, being as yet but twenty-two years of age.

This position attained, Richelieu endeavoured to make the utmost advantage of it. He acquired the good-will of his diocese by rigid attention to the affairs that fell under his jurisdiction; whilst in frequent visits to the capital, he sought to acquire reputation by preaching. In the Estates General of 1614, he was chosen deputy by his diocese, and was afterwards selected by the clergy of the states to present their *cahier* or vote of grievances to the monarch. It was an opportunity not to be thrown away by the ambition of Richelieu, who instantly put himself forward as the champion of the Queen Mother against the cabal of the high noblesse. He at the same time adroitly pointed out where she might find auxiliaries, by complaining that ecclesiastics had no longer a place in the public administration, and were thus degraded from their ancient and legitimate share of influence. Richelieu was rewarded with the place of Almoner to the Queen; and he was soon admitted to her confidence, as well as to that of her favourite the Maréchal D'Ancre.

In 1616 he was appointed Secretary of State; but aware by what slender tenure the office was held, he refused to give up his bishopric. This excited not only the animadversions of the public, but the anger of the favourite. Richelieu offered to give up his secretaryship, but the Queen could not dispense with his talents. The assassination of the favourite, however, soon overthrew the influence of the Queen herself. Still Richelieu remained attached to her, and followed her to Blois: but the triumphant party dreading his talents for intrigue, ordered him to quit the Queen, and repair to one of his priories in Anjou. He was subsequently commanded to retire to his bishopric, and at last exiled to Avignon. Here he sought to avert suspicion by affecting to devote himself once more to theological pursuits. During this period he published one or two polemical tracts, the mediocrity of which proves either that his genius lay not in this path, or, as is probable, that his interest and thoughts were elsewhere.

The escape of the Queen Mother from her place of confinement, excited the fears of her enemies, and the hopes of Richelieu. He wrote instantly to Court, to proffer his services towards bringing about an accommodation. In the difficulty of the moment, the King and his favourite accepted the offer. Richelieu was released from exile, and allowed to join the Queen at Angoulême, where he laboured certainly to bring about a reconciliation. This was not, however, such as the Court could have wished. De Luynes, the favourite, accused the Bishop

of Luçon of betraying him. The Queen sought to regain her ancient authority; the Court wished to quiet and content her without this sacrifice; and both parties, accordingly, after seeming and nominal agreements, fell off again from each other. De Luynes sought a support in the family of Condé; whilst Mary de Medici, refusing to repair to Paris, and keeping in her towns of surety on the Loire, flattered the Huguenots, and endeavoured to bind them to her party. On this occasion Richelieu became intimately acquainted with the designs and intrigues and spirit of the Reformers.

The division betwixt the King and his mother still continued. The discontented nobles joined the latter, and flew to arms. This state of things did not please Richelieu, since defeat ruined his party, and success brought honour rather to those who fought than to him. He therefore exerted himself, first to keep away the chief of the nobility from the Queen, secondly, to bring about an accommodation. The difficulties were got over by the defeat of the Queen's forces owing to surprise, and by the promotion of Richelieu to the rank of Cardinal. The malevolent coupled the two circumstances together; and even the impartial must descry a singular coincidence. The event, at least, proves his address; for when the agreement was finally concluded, it was found that Richelieu, the negotiator, had himself reaped all the benefits. He received the cardinal's hat from the King's hand at Lyons, towards the close of the year 1622.

Not content with this advancement of her counsellor, Mary de Medici continued to press the King to admit Richelieu to his cabinet. Louis long resisted her solicitations, such was his instinctive dread of the man destined to rule him. Nor was it until 1624, after the lapse of sixteen months, and when embarrassed with difficult state questions, which no one then in office was capable of managing, that the royal will was declared admitting Richelieu to the council. Even this grace was accompanied by the drawback, that the Cardinal was allowed to give merely his opinion, not his vote.

Once, however, seated at the council table, the colleagues of the Cardinal shrunk before him into ciphers. The marriage of the Princess Henrietta with the Prince of Wales, afterwards Charles I., was then in agitation. Richelieu undertook to conduct it, and overcame the delays of etiquette and the repugnance of Rome. De Vieuille, the King's favourite and minister, venturing to show jealousy of Richelieu, was speedily removed. The affair of the Valteline had given rise to endless negotiations. The matter in dispute was the attempt of the House of Austria to procure a passage across the Grisons to connect

their Italian and German dominions. France and the Italian powers had opposed this by protests. Richelieu boldly marched an army, and avowed in council his determination to adopt the policy and resume the scheme of Henry IV., for the humiliation of the House of Austria. The King and his Council were terrified at such a gigantic proposal: instead of being awed by the genius of Richelieu, as yet they mistrusted it. Peace was concluded with Spain; on no unfavourable conditions indeed, but not on such as flattered the new minister's pride.

Whilst these negotiations with Spain were yet in progress, the Huguenots menaced a renewal of the civil war. Richelieu advised in the council that their demands should be granted, urging that whilst a foreign foe was in the field, domestic enemies were better quieted than irritated. His enemies took advantage of this, and represented the Cardinal as a favourer of heresy. This charge is continually brought against those who are indifferent to religious dissensions; but it is probable that Richelieu did seek at this time to gain the support of the Protestant party, attacked as he was by a strong band of malcontent nobles, envious of his rise, and intolerant of his authority.

The whole Court, indeed, became leagued against the superiority and arrogance of the Minister; the most *qualified* of the noblesse, to use Aubery's expression, joined with the Duke of Orleans, the monarch's brother, and with the Queen, to overthrow Richelieu. As the Maréchal D'Ancre had been made away with by assassination, so the same means were again meditated. The Comte de Chalais offered himself as the instrument: but the mingled good fortune and address of Richelieu enabled him to discover the plot, and avoid this, and every future peril.

His anchor of safety was in the confidence reposed in him by Louis XIII. This prince, although of most feeble will, was not without the just pride of a monarch; he could not but perceive that his former ministers or favourites were but the instruments or slaves of the noblesse, who consulted but their own interests, and provided but for the difficulties of the moment. Richelieu, on the contrary, though eager for power, sought it as an instrument to great ends, to the consolidation of the monarchy, and to its ascendancy in Europe. He was in the habit of unfolding these high views to Louis, who, though himself incapable of putting them into effect, nevertheless had the spirit to admire and approve them. Richelieu proposed to render his reign illustrious abroad, and at home to convert the chief of a turbulent

aristocracy into a real monarch. It forms indeed the noblest part of this great statesman's character, that he won upon the royal mind, not by vulgar flattery, but by exciting within it a love of glory and of greatness, to which, at the same time, he pointed the way.

Accordingly, through all the plots formed against him, Louis XIII. remained firmly attached to Richelieu, sacrificing to this minister's preeminence his nobility, his brother Gaston, Duke of Orleans, his Queen, and finally the Queen Mother herself, when she too became jealous of the man whom she had raised. As yet however Mary de Medici was his friend, and Richelieu succeeded in sending his enemies to prison or to the scaffold. Gaston was obliged to bow the knee before the Cardinal. And Anne of Austria, who was accused of having consented to espouse Gaston in case of the King's death, was for ever exiled from the affections of the monarch, and from any influence over him. If this latter triumph over the young wife of Louis, whose enmity certainly the Cardinal had most to fear, was excited by coldly invented falsehoods, history has scarcely recorded a more odious crime.

It is said that Richelieu himself was enamoured of Anne of Austria, and that he found himself outrivalled by the Duke of Buckingham. What credit should be assigned to the existence and influence of such feelings it is difficult to determine. But certainly a strong and personal jealousy of Buckingham is to be perceived in the conduct of Richelieu. Policy would have recommended the minister to cajole rather than affront the English favourite at a time when the Huguenot party was menacing and the nobility still indignant. The Cardinal had not long before concluded the marriage of the Princess Henrietta with Charles, in order to secure the English alliance, and thus deprive the Huguenots of a dangerous support. Now he ran counter to these prudent measures, defied Buckingham, whom he forbade to visit Paris, and thus united against himself and against the monarchy, two most powerful enemies, one foreign, one domestic.

If Richelieu thus imprudently indulged his passion or his pique, he redeemed the error by activity and exertion unusual to the age. He at once formed the project of attacking the Huguenots in their chief strong-hold of La Rochelle. Buckingham could not fail to attempt the relief of this sea-port; and the Cardinal anticipated the triumph of personally defeating a rival. He accordingly himself proceeded to preside over the operation of the siege. To render the blockade effectual, it was requisite to stop up the port. The military officers whom he employed could suggest no means of doing this. Richelieu took

counsel of his classic reading ; and having learned from Quintus Curtius how Alexander the Great reduced Tyre, by carrying out a mole against it through the sea, he was encouraged to undertake a similar work. The great mound was accordingly commenced, and well-nigh finished, when a storm arose and destroyed it in a single night. But Richelieu was only rendered more obstinate : he recommenced the mole, and was seen with the volume of Alexander's History in his hand, encouraging the workmen and overruling the objections of the tacticians of the army. The second attempt succeeded, the harbour was blocked up, and the promised aid of England rendered fruitless. The Cardinal triumphed, for La Rochelle surrendered. In his treatment of the vanquished, Richelieu showed a moderation seldom observable in his conduct. He was lenient, and even tolerant towards the Huguenots, content with having humbled the pride of his rival, Buckingham.

La Rochelle was no sooner taken, and Richelieu rewarded by the title of Prime Minister, than he resumed those projects of humbling the House of Austria, in which he had previously been interrupted. A quarrel about the succession to Mantua afforded him a pretext to interfere ; and he did so, after his fashion, not by mere negotiations, but by an army. This expedition proved a source of quarrel between him and the Queen Mother, Mary de Medici, who hitherto had been his firm and efficient friend. Private and family reasons rendered Mary averse to the war. Both the French Queens of the House of Medici had shown the reverence of their family for the princes of the blood of Austria. Mary, on her accession to the regency, had interrupted Henry IV.'s plans for humbling the influence of that house. Richelieu's endeavour to revive this scheme called forth her opposition. He was obstinate from high motives ; she from petty ones. But she could not forgive the ingratitude of him whom she had fostered, and who now dared to thwart and counteract her. The voice of the conqueror of La Rochelle triumphed in council, and his project in the field. The French were victorious in Italy, and the minister equally so over the mind of the monarch.

But Mary de Medici could not forgive ; and she now openly showed her hatred of Richelieu, and exerted herself to the utmost to injure him with the King. Though daily defeating her intrigues, the Cardinal dreaded her perseverance, and resolved to drag the King with him to another Italian campaign. Louis obeyed, and the court set out for the south, the Queen Mother herself accompanying it. Richelieu, however, did not tarry for the slow motions of the monarch. He flew

to the army, took upon him the command, and displayed all the abilities of a great general in out-maneuvring and worsting the generals and armies of Savoy. In the mean time Louis fell dangerously ill at Lyons. His mother, an affectionate attendant on his sick couch, resumed her former empire over him. At one moment his imminent death seemed to threaten the Cardinal with ruin. Louis recovered, however; and his first act was to compel a reconciliation, in form at least, between the Cardinal and the Queen Mother.

The King's illness, although not so immediately fatal to Richelieu as his enemies had hoped, was still attended with serious consequences to him. The French army had met with ill success through the treachery of the general, Marillac, who was secretly attached to the Queen's party : and the failure was attributed to Richelieu.

Mary de Medici renewed her solicitations to her son, that he would dismiss his minister. Louis, it appears, made a promise to that effect ; a reluctant promise, given to get rid of her importunity. Mary calculated too securely upon his keeping it ; she broke forth in bitter contumely against Richelieu ; deprived him of his superintendence over her household ; and treated Madame de Combalet, the Cardinal's niece, who had sunk on her knees to entreat her to moderate her anger, almost with insult. The King was present, and seemed to sanction her violence ; so that Richelieu withdrew to make his preparations for exile. Louis, dissatisfied and irresolute, retired to Versailles ; whilst Mary remained triumphant at the Luxembourg, receiving the congratulations of her party. Richelieu in the mean time, ere taking his departure, repaired to Versailles, and, once there, resumed the ascendant over the monarch. The tidings of this was a thunder-stroke to Mary and her party, who became instantly the victims of the Cardinal's revenge. Marillac was beheaded ; and Mary de Medici, herself at length completely vanquished by her rival, was driven out of France to spend the rest of her days in exile.

Richelieu had thus triumphed over every interest and every personage that was, or was likely to be, inimical to his sway. The young Queen, Anne of Austria, and the Queen Mother, Mary de Medici, had alike been sacrificed to his preeminence ; and it appears that he employed the same means to ruin both. One of the weak points of Louis XIII. was jealousy of his brother, Gaston, Duke of Orleans, whom he could never abide. Notwithstanding his sloth, the King assumed the direction of the Italian army, and went through the campaign, to prevent Gaston from earning honour, by filling the place of command. Richelieu made effectual use of this foible ; he overcame Anne of

Austria, by bringing proofs that she preferred Gaston to the King; and he overcame Mary de Medici by a similar story, that she favoured Gaston, and was paving the way for his succession.

The Duke of Orleans was now indignant at his mother's exile, and espoused her interest with heat. He intruded upon Richelieu, menacing him personally; nor did the latter refrain from returning both menace and insult. Gaston fled to Lorraine, and formed a league with its duke, and with the majority of the French noblesse, for the purpose of avenging the wrongs of his mother, and driving from authority the upstart and tyrannical minister.

The trial of Marillac had roused the spirit and indignation even of those nobles, who had previously respected and bowed to the minister of the royal choice. This nobleman and maréchal was seized at the head of his army, and conveyed, not to a prison, but to Richelieu's own country-house at Ruel. Instead of being tried by his Peers or in Parliament, he was here brought before a Commission of Judges, chosen by his enemy. He was tried in the Cardinal's own hall, condemned, and executed in the Place de Grève.

The iniquity of such a proceeding offered a popular pretext for the nobility to withstand the Cardinal: and they were not without other reasons. Richelieu not only threatened their order with the scaffold, but his measures of administration were directed to deprive them of their ancient privileges, and means of wealth and domination. One of these was the right of governors of provinces to raise the revenue within their jurisdiction, and to employ or divert no small portion of it to their use. Richelieu to remedy this transferred the office of collecting the revenue to new officers, called the *Elect*. He tried this in Languedoc, then governed by the Duc de Montmorenci, a noble of the first rank, whose example consequently would have weight, and who had always proved himself obedient and loyal. Moved, however, by his private wrongs, as well as that of his order, he now joined the party of the Duke of Orleans. That weak prince, after forming his alliance with the Duke of Lorraine, had raised an army. Richelieu lost not a moment in despatching a force which reduced Lorraine, and humbled its hitherto independent duke almost to the rank of a subject. Gaston then marched his army to Languedoc, and joined Montmorenci. The Maréchal de Brezé, Richelieu's brother-in-law, led the royal troops against them, defeated Gaston at Castelnau-dari, and took Montmorenci prisoner. This noble had been the friend and supporter of Richelieu, who even called him his son; yet the Cardinal's cruel policy determined that he should die. There was difficulty in

proving before the Judges that he had actually borne arms against the King.

"The smoke and dust," said St. Reuil, the witness, "rendered it impossible to recognize any combatant distinctly. But when I saw one advance alone, and cut his way through five ranks of *gens-d'armes*, I knew that it must be Montmorenci."

This gallant descendant of five Constables of France perished on the scaffold at Toulouse. Richelieu deemed the example necessary, to strike terror into the nobility. And he immediately took advantage of that terror, by removing all the governors of provinces, and replacing them throughout with officers personally attached to his interests.

Having thus made, as it were, a clear stage for the fulfilment of his great political schemes, Richelieu turned his exertions to his original plan of humbling the House of Austria, and extending the territories of France at its expense. He formed an alliance with the great Gustavus Adolphus, who then victoriously supported the course of religious liberty in Germany. Richelieu drew more advantage from the death than from the victories of his ally; since, as the price of his renewing his alliance with the Swedes, he acquired the possession of Philipsburg, and opened the way towards completing that darling project of France and every French statesman, the acquisition of the Rhine as a frontier.

The French having manifested their design to get possession of Treves, the Spaniards anticipated them; and open war ensued betwixt the two monarchies. The Cardinal allied with the Dutch, and drew up a treaty "to free the Low Countries from the cruel servitude in which they are held by the Spaniards." In order to effect this, the French and Dutch were to capture the fortresses of the country, and finally divide it between them.

But Richelieu's views or means were not mature enough to produce a successful plan of conquest. Surrounded as France was by the dominions of her rival, she was obliged to divide her forces, attack on many sides, and make conquests on none. The generals, whom he was obliged to employ, were remarkable but for servility to him, and jealousy of each other. The Cardinal de la Valette headed one of his armies, but with no better success than his lay colleagues. Instead of crushing Spain, Richelieu endured the mortification of witnessing the irruption of her troops into the centre of the kingdom, where they took Corbie, and menaced the very capital.

This was a critical moment for Richelieu, who is said to have lost

courage amidst these reverses, and to have been roused to confidence by the exhortations of his Capuchin friend and confidant, Father Joseph. He was obliged on this occasion to relax his severity and pride, to own that the generals of his choice were little worthy of their trust, and to call on the old noblesse and the princes of the blood to lead the French troops to the defence of the country. Both obeyed the summons, and exerted themselves to prove their worth by the recapture of Corbie, and the repulse of the Spaniards. The enemies of the Cardinal were aware how much the ignominy of these reverses, as the result of his mighty plans, must have abated the King's confidence in him. They endeavoured to take advantage of the moment, and Louis seemed not averse to shake off his minister. There was no trusting the King's intentions, however, and it was agreed to assassinate Richelieu at Amiens. The Comte de Soissons had his hand on his sword for the purpose, awaiting but the signal from Gaston ; but the latter wanted resolution to give it, and Richelieu again escaped the murderous designs of his foes.

The character of Louis XIII. left his courtiers without hope. It was such a general mass of weakness, as to offer no particular weak point of which they could take advantage. Too cold to be enamoured of either wife or mistress, his gallantries offered no means of captivating his favour ; nor was he bigot enough to be ruled through his conscience by priestly confessors. It is singular that the gallant, peremptory, and able Louis XIV. was governed and influenced by those means which had no hold upon his weak sire. Still as these were the received ways for undermining the influence of a dominant minister, Louis XIII. was assailed through his supposed mistresses, and through his confessors, to induce him to shake off Richelieu. But all attempts were vain. The ladies Hauteville and Lafayette, who had pleased Louis, retired to a convent. His confessors, who had hinted the impiety of supporting the Dutch and German Protestants, were turned out of the palace. And the Queen, Anne of Austria, with whom Louis made a late reconciliation, the fruit of which was the birth of the future Louis XIV., was exposed to disrespect and insult. Her apartments and papers were searched by order of the Cardinal, a letter was torn from her bosom, she was confined to her room, and menaced with being sent back to Spain.

Richelieu in his wars was one of those scientific combatants who seek to weary out an enemy, and who husband their strength in order not to crush at once, but to ruin in the end. Such at least were the tactics by which he came triumphant out of the struggle with Spain.

He made no conquests at first, gained no striking victories; but he compensated for his apparent want of success by perseverance, by taking advantage of defeat to improve the army, and by labouring to transfer to the crown the financial and other resources which had been previously absorbed by the aristocracy. Thus the war, though little brilliant at first, produced at last these very important results. Arras in the north, Turin in the south, Alsace in the east, fell into the hands of the French; Rousillon was annexed to the monarchy; and Catalonia revolted from Spain. Richelieu might boast that he had achieved the great purposes of Henry IV., not so gloriously indeed as that heroic prince might have done, but no less effectually. This was effected not so much by arms as by administration. The foundation was laid for that martial preeminence which Louis XIV. long enjoyed; and which he might have retained, had the virtue of moderation been known to him.

It was not without incurring great personal perils, with proportionate address and good fortune, that Cardinal Richelieu arrived at such great results. The rebellion of the Comte de Soissons, the same whose project of assassination had failed, menaced the Minister seriously. In a battle against the royal army, the Count was completely victorious, an event that might have caused a revolution in the government, had not fortune neutralized it by his death. He fell by a pistol-shot, whilst contemplating the scene of victory. His friends asserted that he was murdered by an emissary of the Cardinal: according to others, the bullet was accidentally discharged from his own pistol.

But the most remarkable plot which assailed Richelieu, was that of Cinq-Mars, a young nobleman selected to be the King's favourite, on account of his presumed frivolity. But he was capable of deep thoughts and passions; and wearied by the solitude in which the monarch lived, and to which he was reduced by the Minister's monopoly of all power, he dared to plot the Cardinal's overthrow. This bold attempt was sanctioned by the King himself, who at intervals complained of the yoke put upon him.

Great interests were at stake, for Richelieu, reckoning upon the monarch's weak health, meditated procuring the regency for himself. Anne of Austria, aware of this intention, approved of the project of Cinq-Mars, which of course implied the assassination of the Cardinal. No other mode of defying his power and talent could have been contemplated. But Richelieu was on the watch. The Court was then in the south of France, engaged in the conquest of Rousillon, a situation favourable for the relation of the conspirators with Spain. The

Minister surprised one of the emissaries, had the fortune to seize a treaty concluded between them and the enemies of France ; and with this flagrant proof of their treason, he repaired to Louis, and forced from him an order for their arrest. It was tantamount to their condemnation. Cinq-Mars and his friends perished on the scaffold ; Anne of Austria was again humbled ; and every enemy of the Cardinal shrunk in awe and submission before his ascendancy. Amongst them was the King himself, whom Richelieu looked upon as an equal in dignity, an inferior in mind and in power. The guards of the Cardinal were numerous as the Monarch's, and independent of any authority save that of their immediate master. A treaty was even drawn up between king and minister, as between two potentates. But the power and the pride of Richelieu reached at once their height and their termination. A mortal illness seized him in the latter days of 1642, a few months after the execution of Cinq-Mars. No remorse for his cruelty or abatement of his pride marked his last moments. He summoned the monarch like a servant to his couch, instructed him what policy to follow, and appointed the minister who was to be his own successor. Even in the last religious duties, the same character and the same spirit were observable. As his cardinal's robe was a covering and excuse for all crimes in life, he seemed to think that it exempted him from the common lot of mortals after death.

Such was the career of this supereminent statesman, who, although in the position of Damocles all his life, with the sword of the assassin suspended over his head, surrounded with enemies, and with insecure and treacherous support even from the monarch whom he served, still not only maintained his own station, but possessed time and zeal to frame and execute gigantic projects for the advancement of his country and of his age. It makes no small part of Henry IV.'s glory that he conceived a plan for diminishing the power of the House of Austria. Richelieu, without either the security or the advantages of the king and the warrior, achieved it. Not only this, but he dared to enter upon the war at the very same time when he was humbling that aristocracy which had hitherto composed the martial force of the country.

The effects of his domestic policy were indeed more durable than those of what he most prided himself upon, his foreign policy. The latter was his end, the former his means ; but the means were the more important of the two. For half a century previous, kings had been acquiring a sacro-sanctity, a power founded on respect, which equalled that of Asiatic despots ; whilst at the same time their real sources of power remained in the hands of the aristocracy. From this

contradiction, this want of harmony betwixt the theoretic and the real power of monarchs, proceeded a state of licence liable at all times to produce the most serious convulsions. To this state of things Richelieu put an end for ever. He crushed the power of the great nobility, as Henry VII., by very different means, had done before him in England. He made Louis a sovereign in the most absolute sense ; he reformed and changed the whole system of administration, destroyed all local authorities, and centralized them, as the term is, in the capital and the court. We see, accordingly, that it was only the capital which could oppose Mazarin ; all provincial force was destroyed by Richelieu. He it was, in fact, who founded the French monarchy, such as it existed until near the end of the eighteenth century, a grand, indeed, rather than a happy result. He was a man of penetrating and commanding intellect, who visibly influenced the fortunes of Europe to an extent which few princes or ministers have equalled. Unscrupulous in his purposes, he was no less so in the means by which he effected them. But so long as men are honoured, not for their moral excellences, but for the great things which they have done for themselves, or their country, the name of Richelieu will be recollected with respect, as that of one of the most successful statesmen that ever lived.

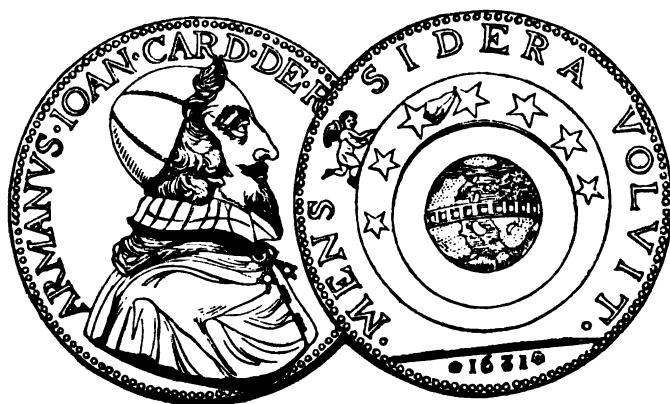
His measures with respect to commerce were very remarkable. He proposed to render the French marine as formidable as the French armies, and chose the wisest means in favouring colonization and commercial companies for the purpose. The chief part of their successful settlements in the east and west the French owe to Richelieu. In financial measures he showed least sagacity, and the disordered state in which he left this branch of the administration was the principal cause of the difficulties of his successor.

As a patron of letters, Richelieu has acquired a reputation almost rivalling that of his statesmanship. His first and earliest success in life had been as a scholar supporting his theses ; and, as it is continually observed that great men form very erroneous judgments of their own excellences, he ever prided himself especially in his powers as a penman : it was a complete mistake on his part. He has left a considerable quantity of theological tracts of trifling merit.

Not content with his own sphere of greatness, he aspired to the minor praise of being skilled in the fashionable literature of the day ; and amused himself by composing dramatic pieces, some of which Corneille was employed to correct. The independence of the poet, and the pride of the patron, led to a quarrel of which we have given some account in the life of the great tragedian. In 1635 Richelieu founded the French

Academy. We should expect to find in his political writings traces of the master-hand of one, who, with a mind of unusual power, had long studied the subject of which he wrote. But those which are ascribed to him, for none, we believe are avowed, or absolutely known to be his, are of unequal merit. The 'Mémoires de la Mère, et du Fils,' are mediocre, and unworthy of him. The 'Testament Politique du Cardinal de Richelieu' (the authenticity of which is strongly contested by Voltaire) bears a much higher reputation as a work upon Government. La Bruyere has said of it, that the man who had done such things ought never to have written, or to have written in the style in which it is written.

There are several English lives of Cardinal Richelieu, most of them published in the seventeenth century, but none which we know to be of authority. In French, we may recommend the reader to the life of Aubery. 'The best account of Richelieu, however, is said to be contained in the 'Histoire de Louis XIII.' by P. Griffet.



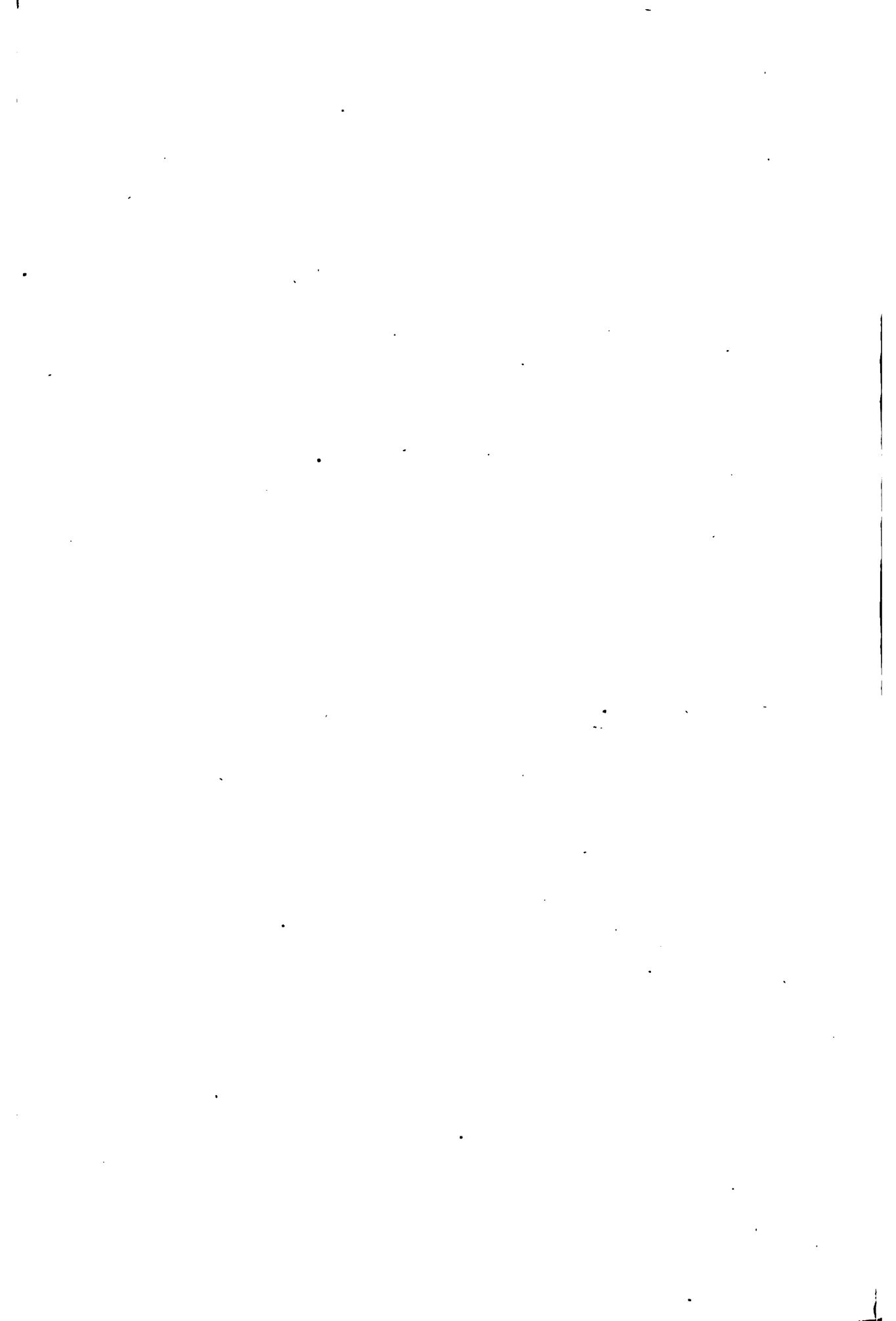


1900-08-09

W. H. Chamberlain

is in urgent need of help
in getting the job done





No record of this eminent philosopher has yet appeared, except his scientific papers, and a few meagre biographical sketches published shortly after his death. It is to be hoped that some one duly qualified for the task will become the historian of his life and labours before it is too late.

William Hyde Wollaston was born August 6, 1766. His grandfather was well known as the author of a work, entitled 'The Religion of Nature Delineated.' He completed his education at Caius College, Cambridge. It has been said, in most of the memoirs of him, that he obtained the honour of being senior wrangler. This is a mistake, arising from Francis Wollaston, of Sidney, having gained the first place in 1783. It appears from the Cantabrigienses Graduati that he did not graduate in Arts; but, with a view to practising medicine, proceeded to the degrees of M.B. in 1787, and M.D. in 1793. He was not unversed, however, in mathematical studies. He first established himself as a physician at Bury St. Edmunds, in Suffolk; but meeting with little encouragement, removed to London. Soon after this change of abode, he became a candidate for the office of physician to St. George's Hospital, in opposition to Dr. Pemberton. The latter was elected, and Wollaston, in a fit of pique, declared that he would abandon the profession, and never more write a prescription, were it for his own father.

He kept to his resolution, hasty and unwise as it may seem; and from this time forward devoted himself solely to the cultivation of science. Even in an economical view he had no cause to regret this, for he acquired wealth by the exercise of his inventive genius. One single discovery, that of a method by which platinum can be made ductile and malleable, is said to have produced him about thirty thousand

pounds. It has been objected that he derogated from the dignity of the philosophic character by too keen an eye towards making his experiments profitable: but in this field, if in any, the labourer is surely worthy of his reward; and unless it can be shown that he turned away from any train of discovery, because it did not promise pecuniary gain, surely not a shadow of blame can be attached to him for profiting by the legitimate earnings of his industry and talents. That he was fond of acquiring money, there is good reason to believe; but there is a story, which has been before told, and which we have ourselves some reason to consider authentic, which proves that he could use nobly that which he had gained frugally. A gentleman, in embarrassed circumstances, requested his interference to procure some place under government. He replied, "I have lived to sixty without asking a single favour from men in office, and it is not, after that age, that I shall be induced to do it, were it even to serve a brother. If the enclosed can be of any use to you, in your present difficulties, pray accept it; for it is much at your service." The enclosure was a cheque for ten thousand pounds.

One of Wollaston's peculiarities was an exceeding jealousy of any person entering his laboratory. "Do you see that furnace?" he once said to a friend, who had penetrated unbidden to this sacred ground. "Yes." "Then make a profound bow to it, for this is the first, and will be the last time of your seeing it." It is not a necessary inference, that this dislike to having his processes observed arose from jealousy either of his fame or his profit: it may have been merely the result of a somewhat saturnine and reserved temper, which seems to have shunned unnecessary publicity on all occasions.

Wollaston was elected a Fellow of the Royal Society in 1793. He was appointed one of its Secretaries, November 6, 1806. His first paper, which is on medical subjects, is published in the Philosophical Transactions for 1797; and, until his death, he continued to be a frequent contributor. His papers amount in number to thirty-nine, and must be well examined before a just idea can be formed of the extent and variety of his scientific knowledge. They embrace various subjects connected with Pathology, Optics, Electricity, Chemistry, Crystallography, and mechanical contrivances of various sorts. He contributed a few papers to other philosophical works. Of the Geological Society he was an active member, though he sent no memoirs to its Transactions; and on the first annual meeting of that body after his death, the president, Dr. Fitton, bore testimony to the high value of his services to the science of Geology.

The lives of Wollaston and Davy began and ended nearly at the same time, and ran parallel to each other ; they never crossed. Each was original, and independent of the other ; their minds were unlike, their processes different, and the discoveries of one never interfered with those of the other. "The chemical manipulations of Wollaston and Davy," we quote from Dr. Paris, "offered a singular contrast to each other, and might be considered as highly characteristic of the temperaments and intellectual qualities of these remarkable men. Every process of the former was regulated with the most scrupulous regard to microscopic accuracy, and conducted with the utmost neatness of detail. It has been already stated with what turbulence and apparent confusion the experiments of the latter were conducted ; and yet each was equally excellent in his own style ; and as artists, they have not unaptly been compared to Teniers and Michael Angelo. By long discipline, Wollaston acquired such power in commanding and fixing his attention upon minute objects, that he was able to recognize resemblances, and to distinguish differences, between precipitates produced by re-agents, which were invisible to ordinary observers, and which enabled him to submit to analysis the smallest particle of matter with success. Davy on the other hand obtained his results by an intellectual process, which may be said to have consisted in the extreme rapidity with which he seized upon, and applied, appropriate means at appropriate moments.

"To this faculty of minute observation, which Dr. Wollaston applied with so much advantage, the chemical world is indebted for the introduction of more simple methods of experimenting : for the substitution of a few glass tubes and plates of glass for capacious retorts and receivers, and for the art of making grains give the results which previously required pounds. A foreign philosopher once called on Dr. Wollaston with letters of introduction, and expressed an anxious desire to see his laboratory. 'Certainly,' he replied ; and immediately produced a small tray containing some glass tubes, a blow-pipe, two or three watch-glasses, a slip of platinum, and a few test bottles." We may conclude, however, that this was not the whole of Wollaston's apparatus, nor he in this quite ingenuous ; and the anecdote forms another illustration of his dislike to admitting any one into his work-room.

To this ingenious turn of mind and love of minute accuracy we owe several valuable instruments. Of these the most important is his reflective Goniometer, or angle-measurer, which by calling in the unerring laws of optics, enables the observer to ascertain within a small limit of

error, the angle contained between two faces of a crystal, and introduced, in the words of Dr. Fitton, "into crystallography a certainty and precision, which the most skilful observers were before unable to attain." Another of his contrivances is the sliding Scale of chemical equivalents, an instrument highly useful to the practical chemist. We also owe to him the Camera Lucida, which enables persons unacquainted with drawing, to take accurate sketches of any objects presented to their view. An amusing and characteristic anecdote of his fondness for producing great results by small means, is told by Dr. Paris. Shortly after he had witnessed Davy's brilliant experiments with the galvanic battery, he met a brother chemist in the street, and taking him aside, pulled a tailor's thimble and a small phial out of his pocket, and poured the contents of the one into the other. The thimble was a small galvanic battery, with which he instantly heated a platinum wire to a white heat.

We have already spoken of the profits which he derived from the manufacture of platinum. This intractable metal, most valuable in the arts from its extreme difficulty of fusion, and power of resisting almost all agents, was rendered by these very qualities almost incapable of being reduced into that malleable form, in which alone it would be made extensively useful. His method of working it is detailed at length in his last Bakerian Lecture, published in the Philosophical Transactions for 1829, and must be read before a person unacquainted with metallurgy can imagine how tedious and laborious were the processes by which he succeeded in bringing platinum to bear the hammer. By an ingenious contrivance, described in the Transactions of 1813, he drew platinum into wire $\frac{1}{5000}$ of an inch in diameter, highly valuable for the construction of telescopes; and even reduced some portions to the inconceivable tenuity of $\frac{1}{30,000}$. Several of his papers are devoted to the consideration of platinum, and of the two new metals, palladium and rhodium, which, in the course of his inquiries, he discovered in small quantities in the ores of platinum. These also he succeeded in rendering malleable. Rhodium is remarkable for its hardness, which has caused it to be used to point the nibs of metallic pens.

During the autumn of 1828 Dr. Wollaston suffered from an affection of the brain, of which he died, December 22, 1828, retaining his faculties to the last. During the period of his illness, feeling that his life was precarious, he devoted himself to communicating, by dictation, his various discoveries and improvements to the world. Five papers by him were read during the last session of the Royal Society during that year, in one of which he alludes affectingly to his illness, as obliging

him to commit his observations to writing more hastily than he was wont. Another is the Bakerian Lecture on the manufacture of platinum, already mentioned.

Previous to his death he invested 1000*l.* stock in the name of the Royal Society, the interest of which he directed to be employed for the encouragement of experiments in Natural Philosophy. He was never married, and was Senior Fellow of Caius at his death. He was privately buried at Chiselhurst in Kent; of which parish his father had been rector.

Dr. Wollaston's philosophical character is thus described in the preface to a late edition of Dr. Henry's 'Elements of Experimental Chemistry':—“Dr. Wollaston was endowed with bodily senses of extraordinary acuteness and accuracy, and with great vigour of understanding. Trained in the discipline of the exact sciences, he had acquired a powerful command over his attention, and had habituated himself to the most rigid correctness both of thought and language. He was sufficiently provided with the resources of the mathematics, to be enabled to pursue with success profound inquiries in mechanical and optical philosophy, the results of which enabled him to unfold the causes of phenomena not before understood, and to enrich the arts connected with those sciences by the invention of ingenious and valuable instruments. In chemistry he was distinguished by the extreme nicety and delicacy of his observations; by the quickness and precision with which he marked resemblances and discriminated differences; the sagacity with which he devised experiments and anticipated their results; and the skill with which he executed the analysis of fragments of new substances, often so minute as to be scarcely perceptible by ordinary eyes. He was remarkable, too, for the caution with which he advanced from facts to general conclusions: a caution which, if it sometimes prevented him from reaching at once to the most sublime truths, yet rendered every step of his ascent a secure station from which it was easy to rise to higher and more enlarged inductions. Thus these illustrious men, Wollaston and Davy, though differing essentially in their natural powers and acquired habits, and moving independently of each other, in different paths, contributed to accomplish the same great ends, the evolving new elements; the combining matter into new forms; the increase of human happiness by the improvement of the arts of civilized life; and the establishment of general laws that will serve to guide other philosophers onwards through vast and unexplored regions of scientific discovery.”

THE family of this celebrated writer, who claims a distinguished place among the founders of Italian literature, came from the village of Certaldo, in the valley of the Elsa, about twenty miles south-west of Florence. His father, Boccaccio di Chellino, was a Florentine merchant, who, in his visits to Paris, became acquainted with a Frenchwoman, of whom Giovanni Boccaccio, the subject of this memoir, was born, A. D. 1313. It is uncertain whether Paris or Florence was the place of his nativity. He commenced his studies at Florence, under Giovanni da Strada, a celebrated grammarian; but was apprenticed by his father, when hardly ten years old, to another merchant, with whom he spent six years in Paris. Attached to literature, he felt a strong distaste to his mercantile life. He manifested the same temper after his return to Florence; upon which his father sent him to Naples, partly upon business, partly because he thought that mingling in the pleasures of that gay city might neutralize his son's distaste to the laborious profession in which he was engaged. Robert of Anjou, the reigning king of Naples, encouraged learning, and his court was the most polished of the age: and during an abode of eight years in that capital, Boccaccio became acquainted with most of the learned men of Italy, especially Petrarch, with whom he contracted a friendship, broken only by death. There also he fell in love with a lady of rank, whose real name he has concealed under that of Fiametta. Three persons have been mentioned as the object of his passion: the celebrated Joanna of Naples, grand-daughter of Robert; Mary, the sister of Joanna; and another Mary, the illegitimate daughter

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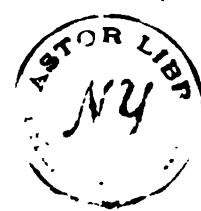
Figure 1. Frame of Reference.

STRUCTURE

Coupled Cavity Radiation Theory

In this section we shall study the effect of the radiation field on the wave function.

The other two results will be obtained in the next section.



of Robert, who seems to have the best claim to this distinction. It was at Naples, that Boccaccio, inspired by a visit to Virgil's tomb, conceived his first longings after literary fame. He determined to give up commerce, and devote himself entirely to study; and his father consented to this change, but only on condition that he should apply himself to the canon law. This was a new source of annoyance. For several years he pored over "dry decisions and barren commentaries," as he expresses himself; until he obtained his doctor's degree, and was left at liberty to follow his own pursuits.

After remaining some time at Florence he returned to Naples; where he employed himself in writing prose and verse, the Decameron and the Teseide. His father died in 1349: and having turned his inheritance into money, he travelled to Sicily, Venice, and other parts of Italy, collecting manuscripts, frequenting universities and libraries, studying Greek under Leontius Pilatus of Thessalonica, astronomy under Andalone del Negro, and Roman literature and antiquities. Manuscripts at this time were very costly; and he soon exhausted his patrimony in these pursuits. He then applied himself to transcribing works; and, by dint of expense and labour, collected a considerable library, which he bequeathed to the Augustine friars of Santo Spirito, at Florence. But his means were inadequate to gratify his liberal tastes: and at times he found himself in very straitened circumstances. It is said that he sometimes availed himself of his skill as a copyist, to eke out his resources. In Petrarch he found a generous friend and a wise counsellor.

Boccaccio enjoyed a high reputation among his countrymen for learning and ability; and he was several times employed by them on embassies and affairs of state. But of all his missions, the most pleasing was that of repairing to Padua, to communicate to Petrarch the solemn revocation of the sentence of exile passed on his father during the factions of 1302; and to inform him that the Florentines, proud of such a countryman, had redeemed his paternal property, and earnestly invited him to dwell in his own land, and confer honour on its then rising university. Though much affected by this honourable reparation, Petrarch did not at the time comply with their request.

About 1361, a singular circumstance wrought a total change in Boccaccio's feelings and mode of life. A Carthusian monk came to him one day, and stated that father Petroni of Sienna, a monk of the same order, who had died not long before in the odour of sanctity, had commissioned him to exhort Boccaccio to forsake his studies, reform his loose life, and prepare for death. To prove the truth of his

mission, he revealed several secrets, known only to Boccaccio and Petrarch, to both of whom both the monks were totally unknown. Terrified at this mysterious communication, Boccaccio wrote to Petrarch, expressing his resolution to comply with the advice, and shut himself up in a Carthusian cloister. Petrarch's answer, which may be found among his Latin epistles, is full of sound sense. He tells his friend, that though this disclosure of secrets, supposed to be unknown to any living soul, appeared a mystery, yet "there is such a thing as artifice in imposture which may at times assume the language of supernatural inspiration ; that those who practise arts of this kind examine attentively the age, the aspect, the looks, the habits of the man they mean to delude, his theories, his motions, his voice, his conversation, his feelings, and opinions : and from all these derive their oracles." He adds, that as to the prediction of approaching death, there was no occasion for a message from the next world to say, that a man past the middle age, and infirm of body, could not expect to have many years to live : and, in conclusion, advises his friend to tranquillize his imagination, and to avail himself of the warning towards leading a more regular life ; retaining at the same time his liberty, his house, and his library, and making a good use even of the heathen authors in the latter, as many holy men, and the fathers of the church themselves, had done before him. This letter restored Boccaccio to reason. He gave up his intention of retiring from the world, and contented himself with assuming the ecclesiastical dress ; and being admitted to the first gradation of holy orders, he adopted a regular and studious course of life, and turned his attention to the study of the Scriptures.

About the following year he again visited Naples, but he was disgusted by the neglect which he experienced ; and, in 1363, he went to Venice, and abode three months with Petrarch. He was sent twice, in 1365 and 1367, to Pope Urban V. upon affairs of the republic. In 1373, the Florentines determined to appoint a lecturer to explain the *Divina Commedia* of Dante, much of which was even then obscure or unintelligible without the aid of a comment. Boccaccio was chosen for this honourable office, with the annual stipend of one hundred florins. He had long and deeply studied, and knew by heart almost the whole of that sublime poem, which he had several times transcribed. He left his written comment on the *Inferno*, and also a life of Dante, both of which have been published among his works. But illness interrupted his lectures, and induced him to resort again to his favourite country residence at Certaldo. A disorder of the

stomach, aggravated by intense application, terminated his existence, Dec. 21, 1375, at the age of sixty-two. He was buried in the parish church of Certaldo, and the following modest inscription, which he had himself composed, was placed over his tomb :—

“ Hac sub mole jacent cineres ac ossa Johannis.
Mens sedet ante Deum, meritis ornata laborum
Mortalis vita. Genitor Bocchaccius illi,
Patria Certaldum, studium fuit alma poesis.”

A monument was also raised to him in the same church, with an inscription by Coluccio Salutati, secretary to the republic, an intimate friend of the deceased. This monument was restored, in 1503, by Tedaldo, Podestà, or justice, of Certaldo, who placed another inscription under the bust of the deceased. The republic of Florence, in 1396, voted monuments to be raised in their capital to Boccaccio, Dante, and Petrarch, but this resolution was not carried into effect.

By a will, which was dated the year preceding that of his death, and which is published among his Latin works, Boccaccio constituted his two nephews, the sons of his brother Jacopo, his heirs. His library he left to his confessor, Father Martin of Signa, an Augustin friar, whom he also appointed his executor, directing, that after the father's death it should revert to the convent of Santo Spirito at Florence, for the use of students. A fire which broke out in the convent, in the year 1471, destroyed this valuable collection which had cost the proprietor so many years of labour and care, and in which he had expended the greater part of his patrimony. Boccaccio having, in his book *De Genealogia Deorum*, quoted several ancient authors whose works have not reached us, it is supposed that some of these must have been included in the catastrophe that befel his library. He has been accused, however, of quoting fictitious authors in this treatise.

Boccaccio's private character was stained by licentiousness. Besides his Fiammetta, he had several mistresses whom he mentions in his *Ameto*. A natural daughter, whose name was Violante, he lost while she was an infant, and he mourns over her in his eclogues under the name of Olympia. He had also an illegitimate son who survived him, but who is not mentioned in his testament.

In the latter years of his life, Boccaccio was poor, though not in absolute want, and his friend Petrarch, who died little more than one year before him, left him by his will fifty golden florins “ to buy him a winter pelisse to protect him from cold while in his study at night,” adding, that if he did no more for Boccaccio, it was not

through want of inclination but want of means. Boccaccio, on his part, had given Petrarch several works copied by his own hand, among others, a Latin translation of Homer, Dante, and some works of St. Augustine.

His modest dwelling at Certaldo, in which he died, still remains. The Princes of the House of Medici protected it by affixing their armorial ensigns on the outside, with an inscription. A Florentine lady, of the name of Medici Lenzoni, purchased it in 1822, in order to preserve it from dilapidation as a relic of departed genius. The appearance of the house is exactly similar to the sketch given by Manni a century since, in his life of Boccaccio. It is built of brick, according to the fashion of the fourteenth century, with a square turret on one side of it commanding a fine view of the surrounding hills; one of which is still called by the country people, "the hill of Boccaccio," from a tradition that this was his favourite place of resort for meditation and study in the summer heats. The grove which crowned its summit was cut down not long ago. A curious circumstance is said by Professor Rosellini to have happened some years before the purchase of the house by the Signora Lenzoni. An old woman, who tenanted the premises, was busy weaving in a small room next to the sitting apartment, when the repeated shaking of her loom brought down part of the wall, and laid open a small recess hollowed in the thickness of it, from which a large bundle of written papers tumbled down. The old woman, through ignorance or superstition, or both, thought it a pious duty to consign the whole of the MSS. to the flames. Probably many interesting autographs of Boccaccio have thus been lost.

Much has been said about Boccaccio's tomb being "torn up and desecrated by bigots;" and Lord Byron has made this the subject of his eloquent invective. The story seems, however, to have originated in mistake. Rosellini has given an authentic account of the whole transaction. It appears that many years since, after a law had been passed by the Grand Duke Leopold in 1783, forbidding the burial of the dead under church pavements, the tomb of Boccaccio, which lay in the centre of the church of St. James and St. Michael at Certaldo, covered by a stone bearing his family escutcheon, his effigy, and the four lines above quoted, was opened. Nothing was found, except a skull, and a tin tube containing several written parchments, which the persons present could not understand. What became of these is not known, perhaps they were destroyed like the MSS. found by the old woman. The tombstone was purchased by some one on the spot,

and having since been broken, one fragment alone remains, which the Signora Lenzoni has recovered and placed inside Boccaccio's house. All this is asserted in a notarial document drawn up at Certaldo in 1825, and certified by ocular witnesses then surviving, who were present at the opening of the vault. But, besides this gravestone, there was a monument placed high on one of the side-walls of the church, consisting of Boccaccio's bust, which is a good likeness, holding with both his arms against his breast a book, on which is written 'Decameron,' and under the bust are the two inscriptions by Salutati and Tedaldo, such as Manni transcribed them. To this monument, and not to the tomb, Byron's reproach partly applies, for it was of late years removed by some fanatics from its place, and thrown in a corner at the end of the church. But the authorities interfered and caused it to be restored in a more conspicuous position, facing the pulpit, where it is now to be seen.

Boccaccio wrote both in Latin and in Italian, in prose and in verse. His Latin works are now mostly forgotten, although the author evidently thought more of them than of his Italian novels. Petrarch fell into the same mistake with regard to his own productions in both languages. The language of the country, especially in prose composition, was then esteemed below the dignity of learned men, and suited only to works of recreation and amusement. Boccaccio wrote a book on mythology (*De Genealogia Deorum*, lib. xv.) which he dedicated to Hugo, King of Cyprus and Jerusalem, at whose request he had composed it. He acknowledges that he had derived much information on the subject from Pietro Perugino, librarian to King Robert of Naples, an assiduous inquirer after ancient and especially Greek lore, and who had availed himself in his researches of his intimacy with the Monk Barlaam, a learned Greek emigrant, residing in Calabria. Boccaccio's other Latin works are '*De montium, sylvarum, lacuum, fluviorum, stagnorum, et marium nominibus, liber*,' a sort of gazetteer. '*De casibus virorum et fæminarum illustrium, libri ix.*' where he eloquently relates, in the last book, the tragic catastrophe of the unfortunate Templars who were executed at Paris in 1310-14; at which his father was present. '*De claris mulieribus opus*,'—and lastly, sixteen '*Eclogæ*,' amounting to about three thousand lines, which have been published with those of Petrarch and others at Florence in 1504. Boccaccio left a key to the real personages of these eclogues in a long letter written to the already-mentioned father Martin of Signa. Both he and Petrarch allude in these poems to the vices and corruptions of the Papal Court.

Of Boccaccio's Italian works, the Decameron is that by which his memory has been immortalized. This book consists of a series of tales, one hundred in number, ten of which are told on each afternoon for ten successive days, by a society of seven young women and three young men, who having fled from the dangers of the plague which afflicted Florence in 1348, assembled at a villa a short distance from the town. The stories turn chiefly on amorous intrigues and devices, disappointments and enjoyments, very broadly narrated; and can by no means be recommended for indiscriminate perusal. They are admirably told, and are full of wit and humour; but the pleasantries are for the most part of a nature which modern manners cannot tolerate. There are, however, better things than mere loose tales in the Decameron: several of the stories are unexceptionable; some highly pathetic. They have furnished many subjects for poetry, and especially for the drama; as, for instance, the tale of Ginevra, the ninth of the second day, and the affecting story of Griselda, the last of all. With regard to the merit of the invention, it is true that some of Boccaccio's tales are taken from the 'Cento Novelle Antiche,' one of the oldest books in the Italian language. But the greater number are original: and many refer to persons and events well known in Italy, especially in Tuscany at that time, as is demonstrated by Manni. The skill with which this multitude of tales is arranged and brought forward, constitutes one of the chief merits of the work. It has been remarked that out of a hundred introductions with which he prefaces them, no two are alike. His narrative is clear; free from metaphors and repetition; avoiding superfluity as well as monotony, and engaging without tiring the attention. His descriptions, though minute, are graceful and lively. Generally humorous, not to say broad, he can, at pleasure, be pathetic; at pleasure, grave and dignified.

Here our praise of this celebrated work must stop. Of its indecencies we have already spoken. The narrative, though clothed in decent words, frequently runs in such a strain as no company of women above the lowest grade of shame would now listen to, much less indulge in. Bad as this is, a still deeper stain is to be found in the utter absence of all moral principle, and callousness to all good feeling. Long planned seduction, breach of hospitality, betrayal of friendship, all these are painted as fortunate and spirited adventures, and as desirable objects of attainment. Unlucky husbands are sneered at; jealousy of honour is censured as stupidity or tyranny. Some of the female characters are even worse than the male; and the world of the Decameron is one which no man of common decency or honour

could bear to live in. Boccaccio saw the mischief he had done, and was sorry when it was too late. In a letter to Mainardo de' Cavalcanti, Marshal of Sicily, he entreated him not to suffer the females of his family to read the *Decameron*; because, “although education and honour would keep them above temptation, yet their minds could not but be tainted by such obscene stories.”

He is fond of introducing monks and friars engaged in licentious pursuits, and exposed to ludicrous and humiliating adventures. He also at times speaks of the rites of the church in a profane or sarcastic manner. From this it has been inferred that he was a sceptic or heretic. The conclusion is erroneous. Like other wits of that ignorant, superstitious, and debauched age, Boccaccio sneered, reviled, and yet feared: and while he ridiculed the ministers and usages of the church, he was employed in collecting relics, and ended his loose tales with invocations of heaven and the saints. Besides, the secular clergy themselves bore no love towards the monks and mendicant friars: they were jealous of the former, and they hated and despised the latter. From Dante down to Leo X. the dignitaries of the church spoke of friars in terms nearly as opprobrious as Boccaccio himself. Leo made public jest of them. Bembo, the secretary of Leo, and a cardinal himself, and Berni, the secretary to several cardinals, give no more quarter to them than is given in the *Decameron*. No wonder then that laymen should take similar liberties, and that a friar should be regarded, as Ugo Foscolo observes, as a sort of scape-goat for the sins of the whole clergy. These considerations may explain how the *Decameron* went through several editions, both at Venice and Florence, without attracting the censures of the Court of Rome. The earliest editions bear the dates of 1471-2, but these became extremely scarce, since the fanatic Savanarola had a heap of them burnt in the public square of Florence in 1497. Of the Valdarfer edition of 1471, only one copy is known to exist. This has long been an object of interest to book collectors; and was purchased, at the Roxburgh sale, by the Marquis of Blandford, for the enormous sum of £2260. After the reformation in Germany, a more watchful censorship was established, and the *Decameron* was placed in the list of proscribed books. An expurgated edition however was allowed to appear, under the *imprimatur* of Pope Gregory XIII. in 1573, in which many passages marked by the Inquisition were expunged, and laymen were made to take the places of the clergy in the more indecorous adventures. The MS. from which this and most of the subsequent editions are taken, was written by Mannelli, the godson, and friend of Boccaccio, in 1384, nine years

after the author's death. It is now in the Laurentian library at Florence. Mannelli has copied scrupulously what he calls "the text," whether an autograph of Boccaccio, or an earlier copy, even to its errors and omissions, noting from time to time in the margin "sic textus," or "deficiebat," or "superfluum." It may therefore be presumed that the author had not put the last finish to his work.

Boccaccio began the Decameron soon after the plague of 1348, and seems to have circulated the days, or parts, among his friends as he completed them. He was a long time in completing the work, which he seems to have laid aside, and resumed at leisure; and it is believed that he was eight years employed upon it, and that he wrote the latter tales about 1356. From that time he seems to have taken no more notice of it. He never sent it to Petrarch, to whom he was in the habit of transmitting all his other compositions; and it was only by accident, many years after, that the poet saw a copy of it. This he mentions in one of his letters to Boccaccio, and says that he "supposes it to be one of his juvenile productions." Petrarch praised only the description of the plague, and the story of Griselda. This he translated into Latin.

Boccaccio's other Italian prose works are 'Il Filocopo,' a prose romance, written at the request of his Fiammetta. It is a dull composition, far inferior to the Decameron in style, and displaying an anomalous mixture of Christian and Pagan images and sentiments. 'L'Amorosa Fiammetta' is also a prose romance, in which the lady relates her passion and grief for the absence of Pamfilo, by which name the author is supposed to have designated himself. 'Il Corbaccio,' or the 'Labyrinth of Love,' in which he relates his adventures with a certain widow, the same probably as he has introduced in the seventh tale of the eighth day of the Decameron. 'Ameto,' a drama of mixed prose and verse. 'Origine, vita, e costumi di Dante Alighieri,' the life of Dante already mentioned. Several letters remain, but the bulk of his correspondence is lost. A life of Petrarch by Boccaccio, written originally in Latin, has been recently discovered, and published in 1828 by Domenico Rossetti, of Trieste.

Boccaccio wrote a quantity of Italian verse, of which he himself thought little, after seeing those of Petrarch; and posterity has confirmed his judgment. His *Teseide*, a heroic poem, in ottava rima, may be excepted. This metre, generally adopted by the Italian epic and romantic poets, he has the merit of having invented. Though imperfect, and little attractive as an epic poem, the *Teseide* is not destitute of minor beauties. Chaucer is indebted to it for his

Knight's Tale, remodelled by Dryden under the name of Palamon and Arcite.

An edition of Boccaccio's Italian prose works was printed at Naples, with the date of Florence, in 1723-4, in 6 vols. 8vo.; but a better edition has been lately published at Florence, corrected after the best approved MSS. in 13 vols 8vo. 1827-32.

The editions of the Decameron are almost innumerable. The best and most recent ones are those of Poggiali, 1789-90, in 5 vols. 8vo.; that of Ferrario, Milan, 1803; that of Colombo, Parma, 1812; all with copious notes and comments; a small one by Molini, Florence, 1820; and the one by Pickering, London, to which the late Ugo Foscolo prefixed an elaborate and interesting historical dissertation. Domenico Maria Manni wrote a 'History of the Decameron,' Florence, 1742, in which he has collected a store of curious information concerning that work and its author.

The principal biographers of Boccaccio are Filippo Villani, who may be considered as a contemporary of our author; Giannozzo Mannetti, Francesco Sansovino, Giuseppe Betussi, Count Mazzuchelli, and lastly, the Count G. Battista Baldelli, who published a new life of Boccaccio in 1806 at Florence.

[Scenes from the Introduction to the Decameron, after a design by Stothard.]

CLAUDE GELÉE, commonly called Claude Lorraine, was born in 1600, at the village of Chamagne in Lorraine, of very indigent parents. He was apprenticed to a pastry-cook ; but at the end of his term of service, whether from disgust at his employment, desire of change, or perhaps influenced by the love of art, he engaged himself as a domestic to some young painters who were going to Italy. On arriving at Rome he was employed as a colour-grinder by Agostino Tassi, an artist then in high repute whose landscapes are spirited and free, and particularly distinguished by the taste displayed in the architectural accompaniments. Tassi first induced him to try his abilities in painting. His earliest essays were implicit imitations of his master's manner, and evinced no symptom of original genius ; perhaps even in his matured style some indications of Tassi's influence may be traced. He continued, as opportunity occurred, to exercise his pencil, obtaining little notice and still less reward. By degrees however he succeeded sufficiently to venture on giving up his menial employment ; and having acquired from Tassi a tolerable expertness in the mechanical part of his profession, he appears from thenceforth to have given little attention to the works of other painters, relying on his own discernment and diligent observation of nature. Many years elapsed, however, before the talents of Claude reached their full maturity, whence his biographers have inferred that he owed his excellence rather to industry than genius : as if such excellence were within the reach of mere application.

He drew with indefatigable diligence, both from antique sculpture and from the living model, but to little purpose ; and he was so





Emerson & H. H. H.

OLAND

*From the original
in the author's collection.*

THE CROWN EDITION. — 1. — VOLUME I. — 1.— 1818.

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conscious of his incapacity, that he used to observe, “ I sell the landscapes, and throw the figures into the bargain :” and sometimes he employed Filippo Lauri and Courtois to insert them. But his figures, however faulty in themselves, are always well adapted to promote the harmony of the whole composition ; being judiciously placed, and shaded, illuminated, sharpened out, or rendered indistinct, with nearly as much skill as is shown in the other parts of the picture. And not unfrequently, however feebly drawn, they partake of that classical and poetic air, which Claude, beyond every other landscape painter, has diffused over his works.

It is said, and the circumstances of his early life render it probable, that he was very deficient in general acquirements. Assuredly he had no opportunities of becoming a profound scholar, nor in relation to his art was it necessary that he should; why should he have sought through the medium of books that imagery which lay before him in reality? Rome, and its environs, the banks of the Tiber, and the broad Campagna, supplied his imagination with the best food, and his pencil with inexhaustible materials. He was accustomed to spend whole days in the open air, not only studying Nature in her permanent aspects, but making memorandums of every accidental and fleeting effect which presented itself to his observation. Sandrart, who sometimes accompanied Claude in his excursions, relates that he was accustomed to discourse on the visible phenomena of nature with the intelligence of a philosopher; not only noting effects, but explaining their causes with precision and correctness, whether produced by reflection or refraction of light, by dew, vapour, or other agencies of the atmosphere. Broad as is his style, he entered minutely into detail, and made drawings of trees, shrubs, and herbage, marking all their peculiarities of shape, growth, and foliage. By this practice he was enabled to represent those objects with undeviating accuracy, and to express, by a few decided touches, their general character.

Amidst the splendour of his general effects, the distinguishing qualities of objects are never neglected; fidelity is never merged in manner; and hence it is, that the longer we look at his pictures, the more vivid is the illusion, the more strongly is the reality of the represented scene impressed upon us. Combining with his fine imagination the results of observation thus long and intensely exercised, he accomplished in his works that union of poetic feeling with accurate representation of nature, which forms the highest excellence of art, and in which, as a landscape painter, he stands unrivalled.

Claude found in Rome and its neighbourhood the materials of his

scenery, but the combination of them was his own: he selected and copied portions, but he seldom or never painted individual views from nature. His favourite effects are those of sunrise and sunset, the periods at which nature puts on her most gorgeous colouring. Beauty and magnificence are the characteristics of his compositions: he seldom aims at sublimity, but he never sinks into dulness. Above all he never brings mean or offensive objects into prominent view, as is so often the case in the Dutch pictures. His fore-grounds are usually occupied by trees of large size and noble character, and temples and palaces, or with ruins august in their decay. Groves and towers, broad lakes, and the continuous lines of arched aqueducts enrich the middle space; or a boundless expanse of Arcadian scenery sweeps away into the blue mountainous horizon. In his admirable pictures of seaports, he carries us back into antiquity; there is nothing in the style of the buildings, the shape of the vessels, or the character of any of the accompaniments which, by suggesting homely associations, injures the general grandeur of the effect. The gilded galleys, the lofty quays, and the buildings which they support, all belong to other times, and all have the stamp of opulence, magnificence, and power.

As Claude's subjects are almost uniformly those of morning or evening, it might naturally be supposed that his works possess an air of sameness. To remove such an impression, it is only necessary to look at his pictures side by side. We then perceive that he scarcely ever repeats himself. The pictures of St. Ursula and the Queen of Sheba, in the National Gallery, are striking instances of that endless variety which he could communicate to similar subjects. In each of these pictures there is a procession of females issuing from a palace, and an embarkation. The extremities of the canvas are occupied by buildings, the middle space being assigned to the sea and shipping, over which the sun is ascending. After the first glance, there is no resemblance in these pictures. The objects introduced in each are essentially different in character; in that of the Queen of Sheba they are much fewer in number; the masses are more broad and unbroken, and the picture has altogether more grandeur and simplicity than its companion. Its atmosphere too is different: it is less clear and golden, and there is a swell on the waves, as if they were subsiding from the agitation of a recent storm. The picture of St. Ursula is characterized by beauty. Summer appears to be in its meridian, and the whole picture seems gladdened by the freshening influence of morning. The vapoury haze which is just dispersing, the long cool shadows thrown by the buildings and shipping, the

glancing of the sun-beams on the water, and the admirable perspective, all exhibit the highest perfection of art. It was thus that Claude, although he painted only the most beautiful appearances of nature, diversified his effects by the finest discrimination. Sea-ports such as these were among his most favourite subjects ; and there are none in which he more excelled : yet perhaps it is with his pastoral subjects that we are most completely gratified. The Arcadia of the poets seems to be renewed in the pictures of Claude.

In the general character of his genius, Claude bears a strong affinity to Titian. He resembles him in power of generalization, in unaffected breadth of light and shadow, and in that unostentatious execution which is never needlessly displayed to excite wonder, and which does its exact office, and nothing more. But the similitude in colour is still more striking. The pictures of both are pervaded by the same glowing warmth ; and exhibit the true brilliancy of nature, in which the hues of the brightest objects are graduated and softened by the atmosphere which surrounds them. The colours by which both produced their wonderful effects were for the most part simple earths, without any mixture of factitious compounds, the use of which has been always prevalent in the infancy, and the decline of art, administering as it does to that unformed or degenerate taste which prefers gaudiness to truth.

Claude's success raised a host of imitators. He was accustomed, on sending home the works which he had been commissioned to paint to make a drawing of each, which he inscribed with the name of the purchaser, as a means by which the originality of his productions might be traced and authenticated. He left six volumes of these drawings at the time of his death, which he called his *Libri di Veritá*. One containing two hundred designs is in possession of the Duke of Devonshire ; these have been engraved by Earlam, and published by Boydell under the title of *Liber Veritatis*. Another of these books was purchased a few years since in Spain, and brought into this country ; where it came into the possession of Mr. Payne Knight, and was bequeathed by him to the British Museum. Some of Claude's pictures have been finely engraved by Woollet. There are twenty-eight etchings extant of landscapes and sea-ports, by Claude's own hand, executed with the taste, spirit, and feeling which we should naturally expect.

England is rich in the pictures of Claude, some of the finest of which were imported from the Altieri Palace at Rome, and from the collection of the Duc de Bouillon at Paris. There are ten in the

National Gallery : the two to which we have adverted, that of St. Ursula especially, he has perhaps never surpassed. The little picture of the Death of Procris is also singularly beautiful. The Earl of Radnor's Evening, or Decline of the Roman Empire, is one of the most exquisite of Claude's works. The Marquis of Bute's collection at Luton, is also enriched by some of the finest specimens of this artist in England.

His private history is entirely devoid of incident. From the time of his arrival in Italy he never quitted it: and though claimed by the French as a French artist, he was really, in all but birth, an Italian. He lived absorbed in his art, and never married, that his devotion to it might not be interrupted by domestic cares. His disposition was mild and amiable. He died in 1682, aged eighty-two.

For more detailed information we may refer to Sandrart's *'Academie Artis Pictoriæ.'* It is extraordinary that in Felibien's elaborate work, "sur les Vies et sur les Ouvrages des plus excellens Peintres anciens et modernes," Claude is entirely omitted. The English reader will find the substance of the information given by Sandrart, in Bryan and Pilkington.

[From a Picture by Claude.]



Specimen of "W" path

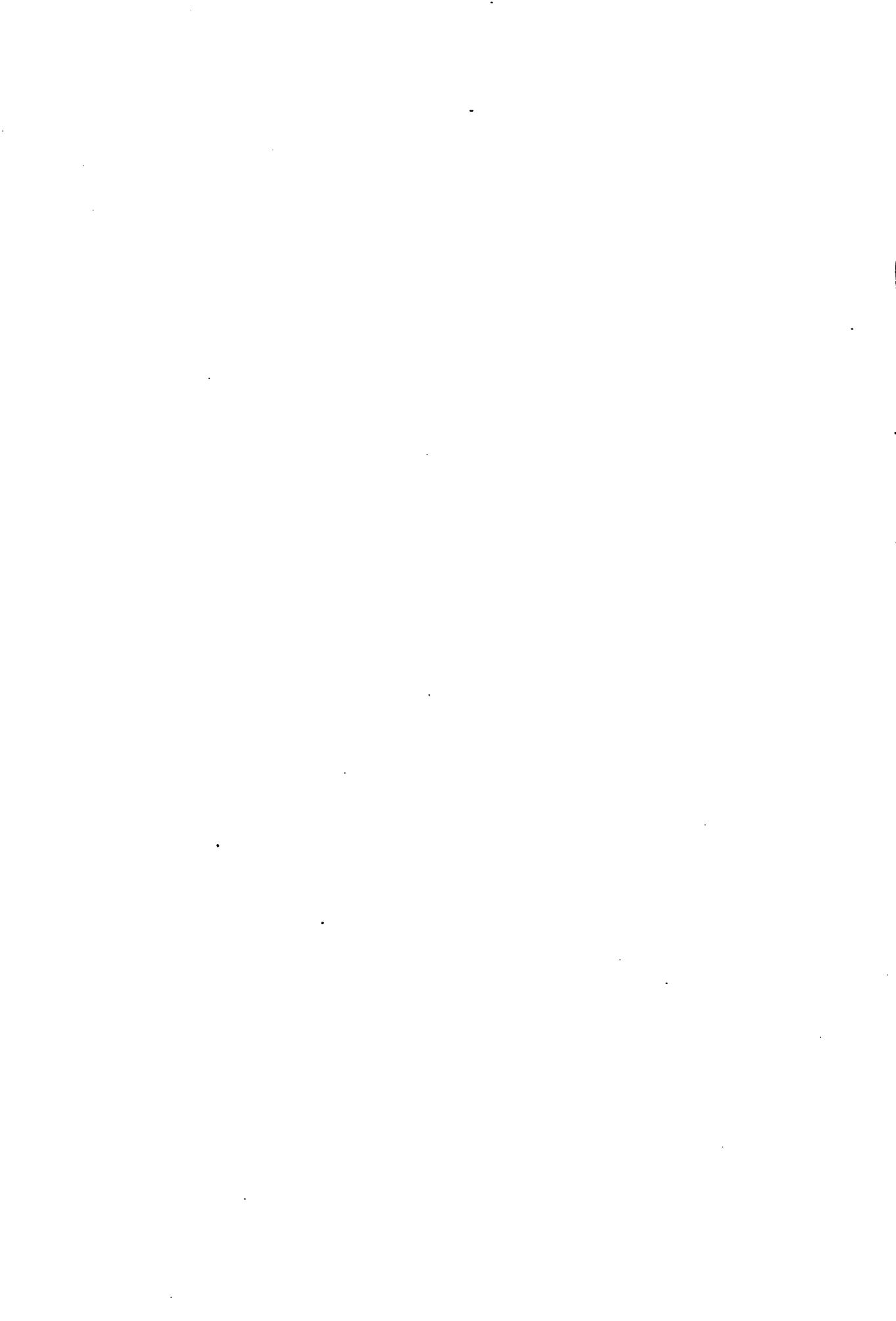
MARY M. DODD

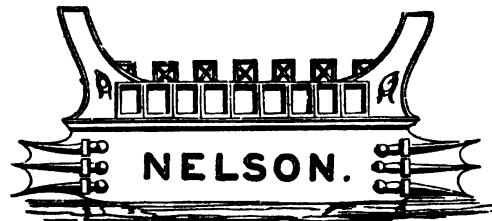
*From an original Culture by L. J. Knobell
in his Hospital Collection of Fungus.*

Published by the Society for the Diffusion of Science—In the year 1851.

Established by James Annesley Collyer Esq.







THE services of our great naval Captain need no long description. The recollection of them is still fondly cherished by his countrymen, and they have been worthily commemorated by Mr. Southey, with whose Life of Nelson few readers are unacquainted. To that most animated and interesting work, which by its late re-publication in the Family Library is placed within the reach of every one, we must refer those who desire fuller information concerning the hero of the Nile, Copenhagen, and Trafalgar, than is contained in this memoir.

Horatio Nelson was born at Burnham Thorpe, in Norfolk, September 29, 1758. His father, the rector of that parish, was burthened with a numerous family: and it is said to have been more with a view to lighten that burden than from predilection for the service, that at the age of twelve he expressed a wish to go to sea, under the care of his uncle, Captain Suckling. Of his early adventures it is unnecessary to speak in detail. In 1773 he served in Captain Phipps's voyage of discovery in the Northern Polar seas. His next station was the East Indies; from which, at the end of eighteen months, he was compelled to return by a very severe and dangerous illness. In April, 1777, he passed his examination, and was immediately commissioned as second lieutenant of the Lowestoffe frigate, then fitting out for Jamaica.

Fortunate in conciliating the good-will and esteem of those with whom he served, he passed rapidly through the lower ranks of his profession, and was made post-captain, with the command of the Hinchinbrook, of twenty-eight guns, June 11, 1779, when not yet of age. In 1782 he was appointed to the Albemarle, twenty-eight; and in 1784 to the Boreas, twenty-eight, in which he served for three years in the West Indies, and though in time of peace, gave signal proof of his resolution and strict sense of duty, by being the first to insist on

the exclusion of the Americans from direct trade with our colonies, agreeably to the terms of the Navigation Act. He had no small difficulties to contend with; for the planters and the colonial authorities were united against him, and even the Admiral on the station coincided with their views, and gave orders that the Americans should be allowed free access to the islands. Still Nelson persevered. Transmitting a respectful remonstrance to the Admiral, he seized four of the American ships, which, after due notice, refused to quit the island of Nevis; and after a long and tedious process at law, in which he incurred much anxiety and expense, he succeeded in procuring their condemnation by the Admiralty Court. Many other ships were condemned on the same ground. Neither his services in this matter, nor his efforts to expose and remedy the peculations and dishonesty of the government agents, in almost all matters connected with naval affairs in the West Indies, were duly acknowledged by the Government at home; and in moments of spleen, when suffering under inconveniences which a conscientious discharge of his duty had brought on him, he talked of quitting the service of an ungrateful country. In March, 1787, he married Mrs. Nisbet, a West-Indian lady, and in the same year returned to England. He continued unemployed till January, 1793; when, on the breaking out of the revolutionary war, he was appointed to the Agamemnon, sixty-four, and ordered to serve in the Mediterranean under the command of Lord Hood.

An ample field for action was now open to him. Lord Hood, who had known him in the West Indies, and appreciated his merits, employed him to co-operate with Paoli in delivering Corsica from its subjection to France; and most laboriously and ably did he perform the duty intrusted to him. The siege and capture of Bastia was entirely owing to his efforts; and at the siege of Calvi, during which he lost an eye, and throughout the train of successes which brought about the temporary annexation of Corsica to the British crown, his services, and those of the brave crew of the Agamemnon, were conspicuous. In 1795 Nelson was selected to co-operate with the Austrian and Sardinian troops in opposing the progress of the French in the north of Italy. The incapacity, if not dishonesty, and the bad success of those with whom he had to act, rendered this service irksome and inglorious; and his mortification was heightened when orders were sent out to withdraw the fleet from the Mediterranean, and evacuate Corsica and Elba. These reverses, however, were the prelude to a day of glory. On February 13, 1797, the British fleet, commanded by Sir John Jervis, fell in with the Spanish fleet off Cape St. Vincent.

In the battle which ensued, Nelson, who had been raised to the rank of Commodore, and removed to the Captain, seventy-four, bore a most distinguished part. Apprehensive lest the enemy might be enabled to escape without fighting, he did not hesitate to disobey signals; and executed a manœuvre which brought the Captain into close action at once with four first-rates, an eighty, and two seventy-four-gun ships. Captain Trowbridge, in the Culloden, immediately came to his support, and they maintained the contest for near an hour against this immense disparity of force. One first-rate and one seventy-four dropped astern disabled; but the Culloden was also crippled, and the Captain was fired on by five ships of the line at once; when Captain Collingwood, in the Excellent, came up and engaged the huge Santissima Trinidad, of one hundred and thirty-six guns. By this time the Captain's rigging was all shot away; and she lay unmanageable abreast of the eighty-gun ship, the S. Nicolas. Nelson seized the opportunity to board, and was himself among the first to enter the Spanish ship. She struck after a short struggle; and, sending for fresh men, he led the way from his prize to board the S. Josef, of one hundred and twelve guns, exclaiming, "Westminster Abbey or victory." The ship immediately surrendered. Nelson received the most lively and public thanks for his services from the Admiral, who was raised to the peerage by the title of Earl St. Vincent. Nelson received the Order of the Bath; he had already been made Rear-Admiral, before tidings of the battle reached England.

During the spring, Sir Horatio Nelson commanded the inner squadron employed in the blockade of Cadiz. He was afterwards despatched on an expedition against Teneriffe, which was defeated with considerable loss to the assailants. The Admiral himself lost his right arm, and was obliged to return to England, where he languished more than four months before the cure of his wound was completed. His services were rewarded by a pension of £1,000. On this occasion he was required by official forms to present a memorial of the services in which he had been engaged; and as our brief account can convey no notion of the constant activity of his early life, we quote the abstract of this paper given by Mr. Southey. "It stated that he had been in four actions with the fleets of the enemy, and in three actions with boats employed in cutting out of harbour, in destroying vessels, and in taking three towns; he had served on shore with the army four months, and commanded the batteries at the sieges of Bastia and Calvi; he had assisted at the capture of seven sail of the line, six frigates, four corvettes, and eleven privateers; taken and

destroyed near fifty sail of merchant vessels, and actually been engaged against the enemy upwards of a hundred and twenty times; in which service he had lost his right eye and right arm, and been severely wounded and bruised in his body."

Early in 1798 Nelson went out in the Vanguard to rejoin Lord St. Vincent off Cadiz. He was immediately despatched with a squadron into the Mediterranean, to watch an armament known to be fitting out at Toulon; the destination of which excited much anxiety. It sailed May 20, attacked and took Malta, and then proceeded, as Nelson supposed, to Egypt. Strengthened by a powerful reinforcement, he made all sail for Alexandria; but there no enemy had been seen or heard of. He returned in haste along the north coast of the Mediterranean to Sicily, refreshed the fleet, and again sailed to the eastward. On nearing Alexandria the second time, August 1, he had the pleasure of seeing the object of his toilsome cruise moored in Aboukir Bay, in line of battle. It appeared afterwards that the two fleets must have crossed each other on the night of June 22.

The French fleet consisted of thirteen ships of the line and four frigates; the British of the same number of ships of the line, and one fifty-gun ship. In number of guns and men the French had a decided superiority. It was evening before the British fleet came up. The battle began at half-past six; night closed in at seven, and the struggle was continued through the darkness, a magnificent and awful spectacle to thousands who watched the engagement with eager anxiety. Victory was not long doubtful. The two first ships of the French line were dismasted in a quarter of an hour; the third, fourth, and fifth were taken by half-past eight; about ten, the L'Orient, Admiral Bruey's flagship, blew up. By day-break the two rear ships, which had not been engaged, cut their cables and stood out to sea, in company with two frigates, leaving nine ships of the line in the hands of the British, who were too much crippled to engage in pursuit. Two ships of the line and two frigates were burnt or sunk. Three out of the four ships which escaped were subsequently taken; and thus, of the whole armament, only a single frigate returned to France.

This victory, the most complete and most important then known in naval warfare, raised Nelson to the summit of glory; and presents and honours were showered on him from all quarters. The gratitude of his country was expressed, inadequately in comparison with the rewards bestowed on others for less important services, by raising him to the peerage, by the title of Baron Nelson of the Nile, with a pension of £2,000. The Court of Naples, to which the battle of Aboukir

was as a reprieve from destruction, testified a due sense of their obligation by bestowing on him the dukedom and domain of Bronte, in Sicily. From Alexandria Nelson went to Naples, much shattered in health by the fatigue and intense anxiety which he had experienced during his long cruise, and suffering from a severe wound in the head, received in the recent battle. He was most kindly received by Sir William Hamilton, the British ambassador; and here commenced that fatal intimacy with the celebrated Lady Hamilton, which ruined his domestic peace, and led to the only stains upon his public life. Her influence ruled him in all transactions in which the Neapolitan Court was interested: and as she sought in all things to gratify the Queen, to whom she was devotedly attached, the passions and follies of a court corrupt and childish beyond example, were too often allowed to warp the conduct of a British Admiral, who hitherto had sought the welfare of his country, even in preference to his own honour and prospects of advancement. His best friends saw and lamented the consequences of his weakness, and remonstrated, but to no purpose; and he himself, unable to control this passion, or to stifle the uneasy feelings to which it gave birth, appears from his private letters to have been thoroughly unhappy. Overpowering that influence must have been, when it could induce the gallant and generous Nelson to annul a treaty of surrender concluded with the Neapolitan revolutionists, under the joint authority of the Neapolitan Royalist General, and the British Captain commanding in the Bay of Naples, and to deliver up the prisoners to the vengeance of the court, on the sole plea that he would grant no terms to rebels but those of unconditional submission.

The autumn of 1798, the whole of 1799, and part of 1800, Nelson spent in the Mediterranean, employed in the recovery of Malta, in protecting Sicily, and in co-operating to expel the French from the Neapolitan continental dominions. In 1800 various causes of discontent led him to solicit leave to return to England, where he was received with the enthusiasm due to his services.

Soon afterwards, still mastered by his passion, he separated himself formally from Lady Nelson. In March, 1801, he sailed as second in command of the expedition against Copenhagen, led by Sir Hyde Parker. The dilatoriness with which it was conducted increased the difficulties of this enterprise; and might have caused it to fail, had not Nelson's energy and talent been at hand to overcome the obstacles occasioned by this delay. The attack was intrusted to him by Sir Hyde Parker, and executed April 2, with his usual promptitude and success. After a fierce engagement, with great slaughter on both sides, the

greater part of the Danish line of defence was captured or silenced. Nelson then sent a flag of truce on shore, and an armistice was concluded. He bore honourable testimony to the gallantry of his opponents. "The French," he said, "fought bravely, but they could not have supported for one hour the fight which the Danes had supported for four." May 5, Sir Hyde Parker was recalled, and Nelson appointed Commander-in-Chief: but no further hostilities occurred, and suffering greatly from the climate, he almost immediately returned home. For this battle he was raised to the rank of Viscount.

At this time much alarm prevailed with respect to the meditated invasion of England; and the command of the coast from Orfordness to Beachy Head was offered to him, and accepted. But he thought the alarm idle; he felt the service to be irksome; and gladly retired from it at the peace of Amiens. When war was renewed in 1803, he took the command of the Mediterranean fleet. For more than a year he kept his station off Toulon, eagerly watching for the French fleet. In January, 1805, it put to sea, and escaped the observation of his look-out ships. He made for Egypt, and failing to meet with them, returned to Malta, where he found information that they had been dispersed in a gale, and forced to put back to Toulon. Villeneuve put to sea again, March 31, formed a junction with the Spanish fleet in Cadiz, and sailed for the West Indies. Thither Nelson followed him, after considerable delay for want of information and from contrary winds; but the enemy still eluded his pursuit, and he was obliged to retrace his anxious course to Europe, without the longed-for meeting, and with no other satisfaction than that of having frustrated by his diligence their designs on our colonies. June 20, 1805, he landed at Gibraltar, that being the first time that he had set foot ashore since June 16, 1803. After cruising in search of the enemy till the middle of August, he was ordered to Portsmouth, where he learned that an indecisive action had taken place between the combined fleets returning from the West Indies, and the British under Sir Robert Calder.

He had not been many days established at home before certain news arrived that the French and Spanish fleets had entered Cadiz. Eager to gain the reward of his long watchings, and laborious pursuit, he again offered his services, which were gladly accepted. He embarked at Portsmouth, September 14, 1805, on board the Victory, to take the command of the fleet lying off Cadiz under Admiral Collingwood, his early friend and companion in the race of fame. The last battle in which Nelson was engaged was fought off Cape Trafalgar, October 21, 1805. The enemy were superior in number of ships, and still more

in size and weight of metal. Nelson bore down on them in two lines ; heading one himself, while Collingwood in the Royal Sovereign led the other, which first entered into action. " See," cried Nelson, as the Royal Sovereign cut through the centre of the enemy's line, and muzzle to muzzle engaged a three-decker ; " see how that noble fellow Collingwood carries his ship into action." Collingwood on the other hand said to his Captain, " Rotherham, what would Nelson give to be here." As the Victory approached an incessant raking fire was directed against her, by which fifty of her men were killed and wounded before a single gun was returned. Nelson steered for his old opponent at Cape St. Vincent, the Santissima Trinidad, distinguished by her size, and opened his fire at four minutes after twelve, engaging the Redoutable with his starboard, the Santissima Trinidad and Bucen-taur with his larboard guns.

About a quarter past one, a musket-ball, fired from the mizen-top of the Redoutable, struck him on the left shoulder, and he fell. From the first he felt the wound to be mortal. He suffered intense pain, yet still preserved the liveliest interest in the fate of the action ; and the joy visible in his countenance as often as the hurrahs of the crew announced that an enemy had struck, testified how near his heart, even in the agonies of death, was the accomplishment of the great work to which his life had been devoted. He lived to know that his victory was complete and glorious, and expired tranquilly at half-past four. His last words were, " Thank God, I have done my duty."

He had indeed done his duty, and completed his task ; for thenceforth no hostile fleet presumed to contest the dominion of the sea. It may seem mournful, that he did not survive to enjoy the thanks and honours with which a grateful country would have rejoiced to recompense this crowning triumph. But he had reached the pinnacle of fame ; and his death in the hour of victory has tended far more than a few years of peaceful life, to keep alive his memory in the hearts of a people which loved, and a navy which adored him. In the eloquent words of the distinguished author from whom this sketch is compiled, " He cannot be said to have fallen prematurely whose work was done ; nor ought he to be lamented, who died so full of honours, and at the height of human fame. The most triumphant death is that of the martyr : the most awful, that of the martyred patriot : the most splendid, that of the hero in the hour of victory. He has left us a name and an example which are at this hour inspiring thousands of the youth of England : a name which is our pride, and an example which will continue to be our shield and our strength."

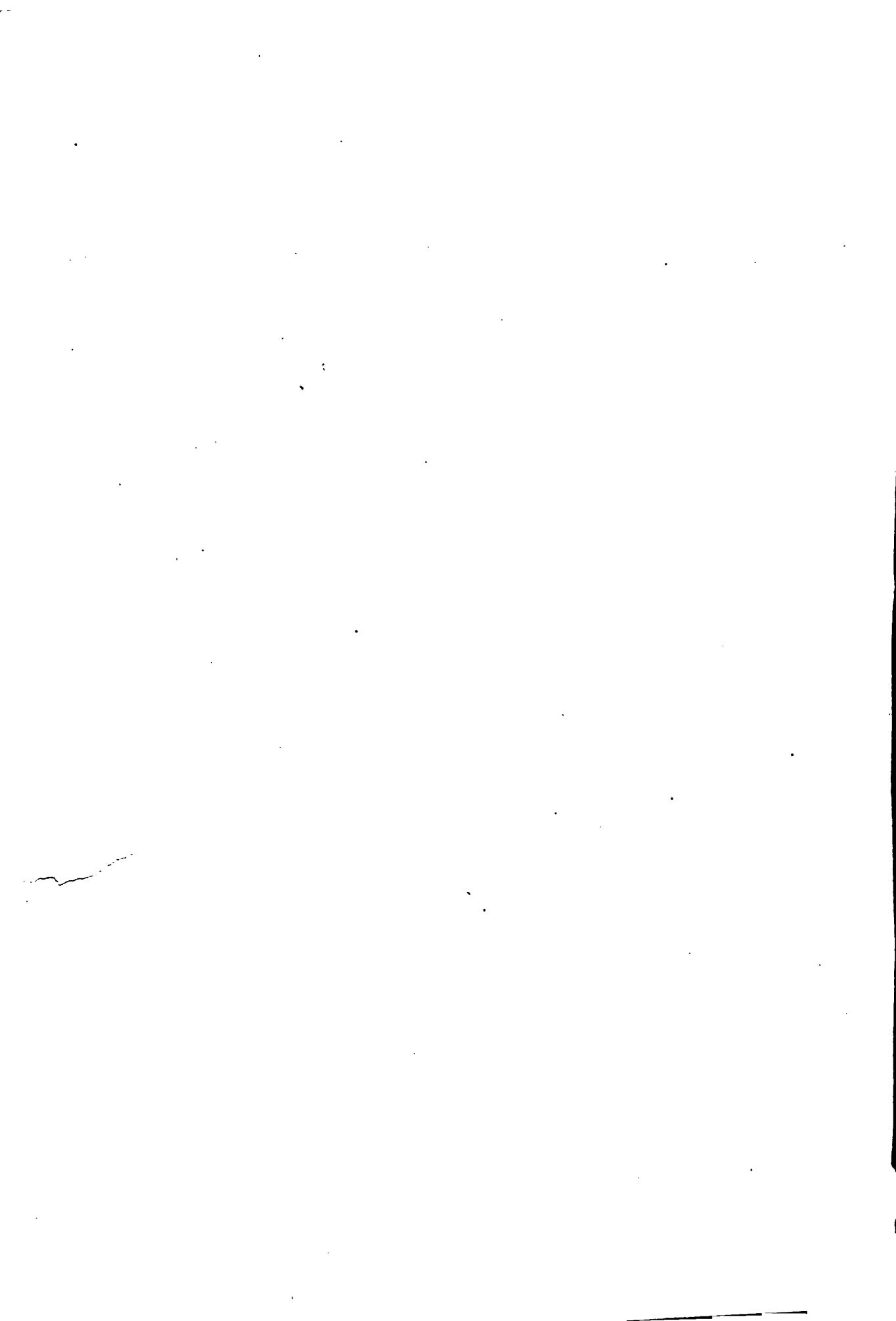
A few words, before we conclude, on those points which appear to us to have constituted the peculiar excellence of Nelson's character, the real source of his greatness. We cannot attribute it solely to personal courage, or professional skill: fearless as he was, the navy contained thousands of hearts as fearless as his own; skilful as he was, there may have been other officers not less skilful than himself. But to courage, talent, and a thorough knowledge of nautical affairs, he joined a degree of political and moral courage, and disinterestedness rarely equalled. To do his duty seems always to have been his first object: not to do all that was required, but all that could be done. With this view he never hesitated to run the risk of professional censure when the emergency seemed to demand it. Many instances are on record in which he acted contrary to orders: some, when he knew that strict obedience would have been mischievous, in circumstances which the framers of the orders could not have foreseen: others where he disobeyed the commands of a superior on the spot, because he knew them to be illegal, or prejudicial to the interests of his country. The most remarkable of these is his conduct in the West Indies, because he had then no established reputation to support him. But Nelson was well aware that this is a course which no officer can be justified in pursuing, except under the full and clear conviction, not only that his own views are just, but that the occasion is of sufficient importance to justify such a deviation from the rules of service; and that, even when the transgression is justified by the event, it yet involves a most serious degree of responsibility. "Well," he said, after the battle of Copenhagen, "I have fought contrary to orders, and I shall perhaps be hanged. Never mind, let them." The feeling which prompted these words, though uttered half in jest, can hardly be mistaken. Another of the most admirable qualities of his character is the extraordinary power which he possessed of attaching all who served under him. His sailors adored him; and many touching anecdotes might be told of their affection. "Our Nel," they used to say, "is as brave as a lion, and as gentle as a lamb." To his officers he was equally kind and considerate. Happy was the midshipman who in Nelson's younger days could obtain a berth in his ship. He himself attended to their instruction, and was diligent in so training them, as to become ornaments to the service by their gentlemanly feeling and deportment, as well as by their professional skill. Humane as brave, it was ever his object to avoid needless bloodshed: and though the virulence of national enmity led him into the most bitter expressions of hatred to the French, he was ever eager to

rescue a drowning, or afford hospitality and protection to a beaten enemy. "May humanity after victory be the predominant feature in the British fleet," was part of the prayer which he composed on the morning of Trafalgar. There is indeed one stain on his humanity, one stain on his good faith ;—the deliverance of the Neapolitan revolutionists to the vengeance of a cowardly and cruel court. Of this we have already spoken ; and far from excusing, we do not even wish to palliate it. It was the result of his fatal attachment to Lady Hamilton : and it is the duty of the biographer to point out that the one great blot on his domestic, led to the one great blot upon his public character. He has added another to the list of great men, who, proof against other temptations, have yielded to female influence ; and we may add (for it is a valuable lesson) that in so doing he not only blemished his fame, but ruined his happiness.

Towards his country, however, Nelson was faultless ; and its gratitude has been worthily shown by heaping honours on his memory. His brother was made an earl, and an estate was purchased for the family, and a pension granted to support the title. His remains were brought to England, and interred with the utmost pomp of funeral ceremony in the cemetery of St. Paul's. His ship, the Victory, is still preserved at Portsmouth, and will long continue to be a chief object of interest to the visitors of that mighty arsenal.

GEORGE LEOPOLD CHRISTIAN FREDERIC DAGOBERT CUVIER was born August 23, 1769, at Montbeliard, a small town in Alsace, which then formed part of the territory of the Duke of Wurtemburg. His father was a retired officer, living upon his pension, who had formerly held a commission in a Swiss regiment in the service of France. He had the inestimable advantage of possessing a very sensible mother who even in infancy attended with sedulous care to the formation of his character, and the development of his mind. He gave early indications that nature had endowed him with her choicest intellectual gifts. A memory of extraordinary strength, joined to industry, and to the power of fixing his attention steadily upon whatever he was engaged in, enabled him to master all the ordinary studies of youth with facility; and by the time he was fourteen years of age he had acquired a fair knowledge of the ancient, and of several modern languages, and had made considerable progress in the mathematics, besides having stored his mind by a wide range of historical reading. He very early gave proofs of a talent for drawing, which in after-life proved of material service in his researches into natural history. When he was twelve years old he read the works of Buffon with avidity, and he no doubt received from the writings of that accomplished and elegant historian of nature an early bias towards the study of zoology. While he was at school he instituted a little academy of sciences among his companions, of which he was elected the president: his sleeping-room was their hall of meeting, and the bottom of his bed the president's

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Submitted by J. Thomson

C O W T H R

*'some unoriginal' drawing in the preparation of
the 'Crownship Survey of Scotland'*

Submitted by Anne Brumell Hall & Co.



chair. They read extracts from books of history, travels, and natural philosophy, which they discussed ; and the debate was usually followed by an opinion on the merits of the question, pronounced from the chair.

In 1783 the reigning Duke of Wurtemburg visited Montbeliard ; and became acquainted with the unusual attainments of young Cuvier, who had then reached the fourteenth year of his age. Struck by the early promise of future eminence, he offered to take him under his own protection. The proposal was readily accepted, and the future philosopher went to Stutgard to prosecute his studies in the university of that place. He continued there four years, and did not fail to turn to good account the excellent opportunities which were afforded to him, of laying the foundation of that extensive acquaintance with every great department of human knowledge, for which he was in after-life so eminently distinguished. The universality of his genius was as remarkable as the depth and accuracy of his learning in that particular field of science, with which his name is more especially associated. He not only gained the highest academical prizes, but was decorated by the Duke with an order ; a distinction which was only conferred upon five or six out of the four hundred students at the university.

He had now arrived at an age when it was necessary for him to choose a profession, and his inclination led him to seek employment in one of the public offices in the country of his patron. This he would probably have obtained ; but, happily for science, the circumstances of his parents made it impossible for him to linger in expectation, and he changed his views. In July, 1788, being then in his nineteenth year, he accepted the office of tutor in a Protestant family in Normandy, having been himself brought up in that faith.

The family lived in a very retired situation near the sea ; and Cuvier was not so constantly engaged with his pupils as to prevent him from cultivating those branches of science, for which he had imbibed a decided taste while listening to the lectures of Abel, the professor of natural history at Stutgard. He devoted himself especially to the study of the Mollusca, for which his vicinity to the sea afforded him good opportunities ; and continued his researches uninterrupted for six years in this retirement. The reign of terror at Paris, which spared neither virtue nor talent, drove M. Tessier, a member of the Academy of Sciences, to seek refuge in Normandy. He became acquainted with the young naturalist, and soon learned to appreciate his talents ; and he introduced him to the correspondence

of several of the more eminent men of science in Paris, among whom were Lametheric, Olivier, and Lacepède. The impression which Cuvier made upon his correspondents was so great, that when tranquillity was restored, they invited him to come to the capital. He accepted the invitation, and in the spring of 1795 removed to Paris. He was soon afterwards appointed Professor of Natural History in the central school of the Pantheon.

Being very desirous of obtaining some official connexion with the Museum of Natural History at the Jardin des Plantes, with the view of gaining free access to the valuable collections there deposited, he solicited the aid of his scientific friends, and by their exertions, particularly those of De Jussieu, Geoffroy, and Lacepède, he was nominated assistant to Mertrud, the professor of comparative anatomy, a chair which had been recently instituted. Here he had free scope to indulge his passion for that branch of science, and by his indefatigable exertions he speedily brought together a very copious supply of illustrations for his lectures. He never ceased to make the museum a primary object of his care, and at last formed the most perfect and the most splendid collection of comparative anatomy which exists in the world. The excellence of his lectures, in which the interest of the subject was heightened by his eloquence and easy delivery, attracted a crowd of auditors; and while he thus excited and extended a taste for a department of science previously but little cultivated, those who listened to him spread the fame of the young professor.

At the establishment of the Institute in 1796 he was chosen one of the original members; and the papers which he read before that body, giving an account of his researches and discoveries in comparative anatomy, enriched their memoirs, and procured for him a high and widely extended reputation at an early period of life. In 1800 he was appointed Secretary to the Institute. In the same year Bonaparte was appointed President. Cuvier thus, by virtue of his office, was brought into immediate and frequent communication with that extraordinary man; an event which had a material influence upon his future destiny, and opened to him new and wide fields of usefulness and distinction. Such were the powers of his mind, and so great was the versatility of his genius, that in whatever situation he was placed his superiority was soon acknowledged by his associates.

In the year 1802 the attention of the First Consul was directed to the subject of public instruction, and six inspectors-general were commissioned to organize lyceums or colleges in thirty towns of France. Cuvier was one of them, and he left Paris to execute the duties which

had been assigned to him in the provinces. From this period his attention was always particularly directed to the subject of education ; and his labours in that cause have had the most important influence upon every institution for public instruction in France, from the University of Paris down to the most humble village school. At the foundation of the Imperial University in 1808, Cuvier was named a member of its council for life. When Italy was annexed to the French empire, he was charged at three different times with missions to that country, for the purpose of re-organizing the old academies and colleges, and of establishing new ones : and in the last of those missions in 1813, although a Protestant, he was sent to form the University at Rome. In 1811 he went into Belgium and Holland to perform the same duties ; and the reports which he drew up on that occasion, which were afterwards printed, possess great interest, especially in those parts where he speaks of the schools in Holland for the lower classes. He felt how important it is to the welfare of a nation, that good education should be within reach even of the poor : and there is no country in Europe where that subject is attended to with more enlightened views than in Holland, where excellent primary schools have been in operation for nearly half a century. When the great measure for the general introduction of schools for the lower orders throughout France, was brought forward in 1821, the duty of drawing up the plan upon which they were to be established was confided to Cuvier ; and his enlightened benevolence and practical good sense are equally conspicuous in the system which on his recommendation was adopted. It has proved admirably adapted to the ends in view. The direction of the Protestant schools was more particularly intrusted to him, and he introduced into all those which had previously existed many important improvements.

In February, 1815, the university was remodelled by the Bourbon government, and Cuvier was appointed a member of the Royal Council of Public Instruction. Shortly afterwards came the events of the Hundred Days, and among them the restoration of the Imperial University. Cuvier was re-appointed to his seat in the Council, for they felt that they could not do there without him. In four months another revolution took place in the university, as in other public establishments ; and as it was found that the system of the Royal University could not be resumed, a commission was appointed to execute the functions of the Grand Master, the Chancellor, and the Treasurer. In this commission the duties which had belonged to the Chancellor were assigned to Cuvier. In this station he was eminently

useful in maintaining the rights of the university under circumstances of no ordinary difficulty. He was twice President of the Commission, and each time for a year; but on account of his being a Protestant he could not retain that place permanently. But the Bishop, who, as a member of the commission, had discharged the duties which belonged to the Grand Master of the University, was appointed minister for ecclesiastical affairs; and Cuvier was nominated as his successor, so far as concerned the Protestant faculty of theology, and continued to act in this capacity for the rest of his life. As a member of the Council of State, and attached to the department of the Minister of the Interior, he had the direction of all matters relating to Protestant, and other religious congregations, not Catholic.

During his mission to Rome in 1813 he was appointed by Napoleon a member of the Council of State; and on the restoration of the Bourbons his political opinions formed no obstacle to his continuing in that place. Although he was left undisturbed in his situation at the university, he was removed from the Council of State during the Hundred Days; but resumed his seat when the fate of his former patron and master was sealed. It is to be regretted that a mind so powerful as that of Cuvier should not have felt the paramount importance of having settled opinions on the great principles of government; and the facility with which he made himself acceptable to the despotic Emperor, the weak and bigoted Bourbons, and the liberal government of Louis Philippe, showed a want of fixed public principle which casts a shade upon the memory of this great man.

As a member of the Council of State he took a distinguished lead, which indeed he never failed to do wherever he was placed, and he was eminently useful by his extraordinary talent for the despatch of business. He was a patient listener, and was never forward with his opinion; he allowed the useless talkers to have their course, and, while he appeared indifferent to what was going on, he was often drawing up a resolution, which his colleagues usually adopted without farther discussion, after he had given a short and luminous exposition of his views. For thirteen years previous to his death he was chairman of the Committee of the Council of State, to which the affairs of the interior belong; and the quantity of business which passed through his hands was wonderful. It was accomplished by his great skill in making those useful with whom he acted; by his talent in keeping his colleagues to the point in their discussions; and by his prodigious readiness of memory, which enabled him to go back at once to former decisions where the principle of the question under

deliberation had been already settled. His reading in history had been very extensive, and his attention was ever alive to what was passing around him, as well in other countries as in France; so that he brought to bear on the matter in debate, not speculative opinions merely, but maxims drawn from the experience of past and present times. In the Chamber of Deputies, of which he was a member for several years, he took an active part, and often originated measures. His manner as a speaker was very impressive, and the rich stores of his mind, and his ready and natural eloquence commanded attention. At the end of 1831 he was created a peer; and during the short time he sat in the Upper Chamber, he took a prominent part in its business, and drew up some important reports of committees to which he belonged.

But his reputation as a statesman was confined to France: his achievements in science have spread his fame over the civilized world. We can in this place do little more than mention the titles of the most important of Cuvier's works; even to name all would carry us beyond our limits. His earliest production was a memoir read before the Natural History Society of Paris, in 1795, and published in the *Décade Philosophique*. In this paper he objects to the divisions of certain of the lower animals adopted by Linnæus, and proposes a more scientific classification of the mollusca, crustacea, worms, insects, and other invertebrate animals. His attention had been long directed to that branch of natural history, and his subsequent researches in the same department, most of which have been communicated to the world through the medium of the '*Annales du Museum*,' have thrown great light on that obscure and curious part of the creation. Three years afterwards, he published his *Elementary View of the Natural History of Animals*, which contains an outline of the lectures he delivered at the Pantheon. In this work he displayed the vast extent of his acquaintance with the works of his predecessors, and, at the same time, the originality of his own mind, by introducing a new arrangement of the animal kingdom, founded on more exact investigation and comparison of the varieties which exist in anatomical structure. With the assistance of his friends, Dumeril and Duvernoy, he published, in 1802, his '*Leçons d'Anatomie Comparée*,' in two volumes, octavo, afterwards extended to five. These are singularly lucid and exact, and form the most complete work on the subject which has yet appeared.

The next important publication we have to notice, is one in which he embodied the results of his extensive researches in a very inte-

resting field of inquiry, concerning the remains of extinct species of animals which are found enveloped in solid rocks, or buried in the beds of gravel that cover the surface of the earth. We are disposed to think his 'Recherches sur les Ossemens Fossiles' the most important of his works, the most illustrious and imperishable monument of his fame. The quarries in the neighbourhood of Paris abound in fossil bones; and he had great facilities for collecting the valuable specimens which were almost daily discovered in the ordinary working of the quarry. When he went to Italy, he had an opportunity of seeing animal remains of the same sort procured by the naturalists of that country from their native soil, and preserved in their museums. His attention became now specially attracted to the subject; and having accumulated materials from all parts of the world, he announced the important truths at which he had arrived in the work above-mentioned, in four quarto volumes, in the year 1812. A new edition, enlarged to five volumes, appeared in 1817, and in 1824 it was extended to seven volumes, illustrated by two hundred engravings. No one who was not profoundly skilled in comparative anatomy could have entered upon the inquiry with any prospect of success; and Cuvier not only possessed that qualification, but was singularly constituted by nature for the task. His powerful memory was particularly susceptible of retaining impressions conveyed to it by the eye: he saw at a glance the most minute variations of form, and what he saw he not only never forgot, but he had the power of representing upon paper with the utmost accuracy and despatch. It is very seldom that the entire skeleton of an animal is found in a fossil state: in most instances the bones have been separated and scattered before they were entombed, and a tusk, a jaw, or a single joint of the back-bone is very often all that is met with, and frequently too in a mutilated state. But an instructed mind like that of Cuvier was able to re-construct the whole animal from the inspection of one fragment. He had discovered by his previous researches such a connexion between the several bones, that a particular curvature, or a small protuberance on a jaw, or a tooth, was sufficient to indicate a particular species of animal, and to prove that the fragment could not have belonged to any other. The 'Recherches sur les Ossemens Fossiles' have made us acquainted with more than seventy species of animals before unknown.

The preliminary discourse in the first volume is a masterly exposition of the revolutions which the crust of the earth has undergone: revolutions to which the animal creation has been equally subject. It

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is written with great clearness and elegance, and is so much calculated to interest general readers as well as men of science, that it has been translated into most of the European languages. The English translation, by Professor Jameson, published under the title of 'Essay on the Theory of the Earth,' has gone through several editions.

In his examination of the fossil bones found near Paris, Cuvier was led to inquire into the geological structure of the country around that capital. He assumed M. Alexander Brongniart as his associate, and the result of their joint labours is contained in one of the volumes of the work now under consideration, in an Essay on the Mineralogy of the Environs of Paris. This essay formed a great epoch in geological science, for it was then that the grand division of the tertiary formations was first shown to form a distinct class. A new direction and a fresh impulse was thus given to geological investigations; and many of the most important general truths at which we have now arrived in this science, have been established by discoveries to which the essay of Cuvier and Brongniart led the way.

In 1817 appeared the first edition of the 'Règne Animal,' in four octavo volumes, one of which was written by the celebrated naturalist Latreille. This work gives an account of the structure and history of all existing and extinct races of animals: it has subsequently been enlarged. Cuvier began, in conjunction with M. Valenciennes, an extensive general work on fishes, which it was calculated would extend to twenty volumes. Eight only have appeared; for the embarrassments among the Parisian booksellers, in 1830, suspended the publication, and it has thus been left incomplete; but a great mass of materials was collected, and we may hope that they will yet be published. In addition to these great undertakings, he had been for years collecting materials for a stupendous work, a complete system of comparative anatomy, to be illustrated by drawings from nature, and chiefly from objects in the Museum at the Jardin des Plantes. Above a thousand drawings, many executed by his own hand, are said to have been made. Looking back to what he had already accomplished, and considering his health and age, for he was only in his sixty-third year, it was not unreasonable in him to hope to see the great edifice erected, of which he had laid the foundation and collected the materials. But unfortunately for the cause of science it was ordered otherwise, and there is something particularly touching in the last words he uttered to his friend the Baron Pasquier, and in sounds, too, scarcely articulate, from the malady which so suddenly cut short his career—"Vous le voyez, il

y a loin de l'homme du Mardi (nous nous étions rencontrés ce jour là) à l'homme du Dimanche : et tant de choses, cependant, qui me restaient à faire ! trois ouvrages importans à mettre au jour, les matériaux préparés, tout était disposé dans ma tête, il ne me restait plus qu'à écrire."
" You see how it is, how different the man of Tuesday (we had met on that day) from the man of Sunday : and so many things too that remained for me to do ! three important works to bring out, the materials prepared, all disposed in order in my head, I had nothing left to do but to write." In four hours afterwards that wonderfully organized head had become a mere mass of insensible matter.

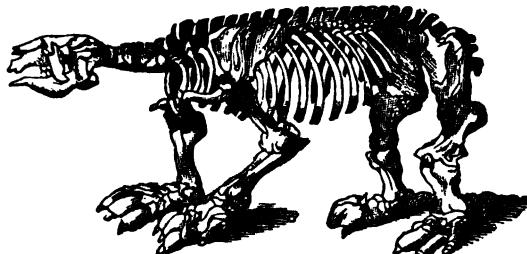
Besides the works above enumerated, and many memoirs in the transactions of the scientific bodies of Paris, he has given to the world, in four octavo volumes, a History of the Progress of the Physical Sciences, from 1789 to 1827, which evince his genius and extensive erudition. The first volume is a reprint of a report which he presented, as Perpetual Secretary of the Institute, to Napoleon, in 1808, on the Progress of the Physical Sciences from 1789 to 1807. In the same capacity, during thirty-two years, he pronounced the customary Eloges upon deceased members of the Institute. These are collected in three octavo volumes, and bear witness to the versatility of his genius and the extent of his attainments ; for whether he is recording the merits of a mathematician, a chemist, a botanist, a geologist, or the cultivator of any other department of science, he shows himself equally conversant with his subject.

He lived at the Jardin des Plantes for nearly forty years, surrounded by the objects which engrossed so great a portion of his thoughts, and there received every Saturday the men of science of Paris, and all others who visited that capital from any part of the world. Professors and pupils met in his rooms to listen with instruction and delight to his conversation, for he was accessible to all. Although compelled to be a very rigid economist of his time, he was so goodnatured and considerate, that if any person who had business to transact with him called at an unexpected hour, he never sent him away ; saying, that one who lived so far off had no right to deny himself. Every thing in his house was so arranged as to secure economy of time : his library consisted of several apartments, and each great subject he attended to had a separate room allotted to it ; and he usually worked in the apartment belonging to the subject he was at the moment engaged with, so that he might be surrounded with his materials. His ordinary custom, when he returned from attending public business in Paris, was to go at once to his study, passing a few

minutes by the way in the room where his family sat; which latterly consisted of Madame Cuvier and her daughter by a former marriage. He came back when dinner was announced, usually with a book in his hand; and returned soon after dinner to his study, where he remained till eleven. He then came to Madame Cuvier's room, and had generally some of the lighter literature of the day read aloud to him. Sometimes the book selected was of a graver cast, for it is said that during the last year of his life he had the greater part of Cicero read to him. His manner was courteous, kind, and encouraging: every one who took an interest in any subject with which Cuvier was familiar, felt assured that he might approach him without fear of meeting with a cold or discouraging reception.

He had four children, but lost them all. The last taken from him was a daughter, who was suddenly carried off by consumption on the eve of her marriage. He was most tenderly attached to her, and it required all the efforts of his powerful mind to prevent his sinking under the blow. He found distraction by intense thought on other subjects, but not consolation, for the wound never healed.

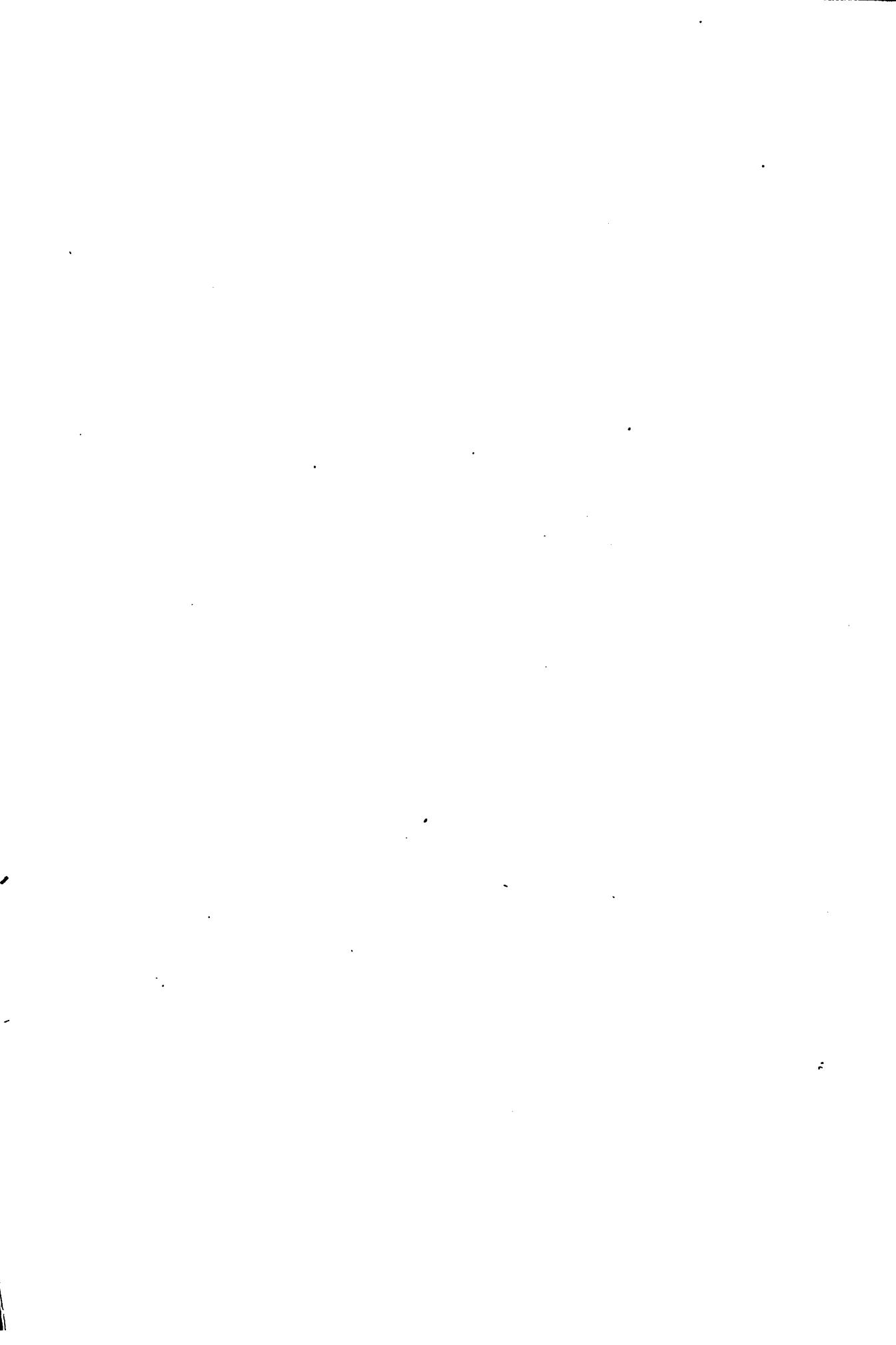
On Tuesday, the 8th of May, 1832, he opened his usual course at the College of France, with a particularly eloquent introductory lecture, full of enthusiasm in his subject, to the delight of his numerous audience. As he left the room he was attacked with the first symptoms of the disease which was so soon to prove fatal: it was a paralytic seizure. He was well enough, however, to preside the next day at the Committee of the Council of State, but that was the last duty he performed. He died on the following Sunday, leaving behind him an imperishable name, which will be held in honour in the most advanced state of human learning.

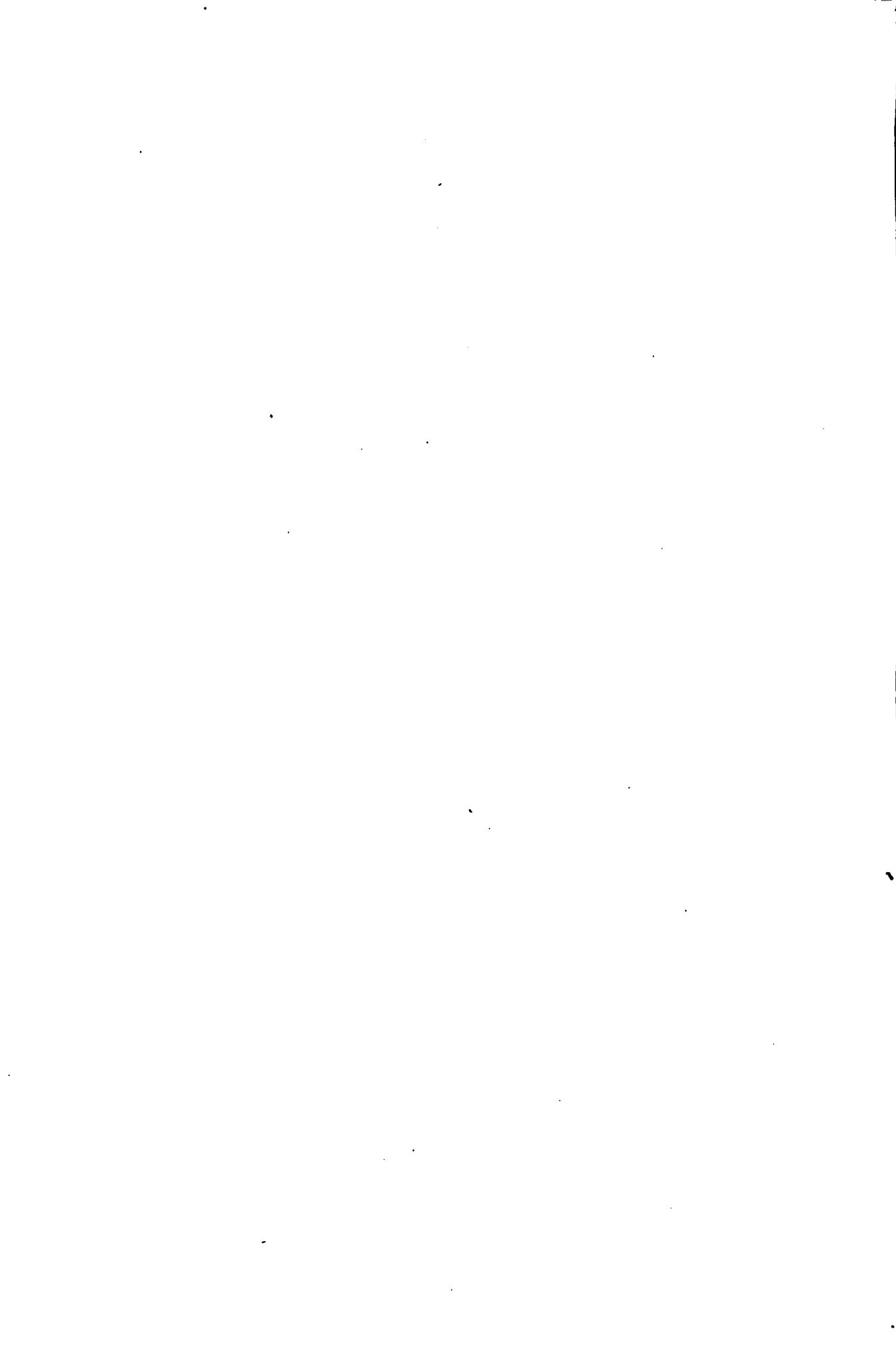


Skeleton of the *Megatherium*.

JOHN RAY, whom Haller describes as the greatest botanist in the memory of man, and whose writings on animals are pronounced by Cuvier to be the foundation of all modern zoology, was born on the 29th of November, 1628, at Black Notley, near Braintree, in Essex. His father was a blacksmith, who availed himself of the advantages of a free grammar school at Black Notley to bestow upon his son a liberal education. John was designed for holy orders; and was accordingly entered at Catherine Hall, Cambridge, in his sixteenth year. He subsequently removed to Trinity, of which college he was elected a Fellow, in the same year with the celebrated Isaac Barrow. In 1651 he was appointed Greek Lecturer of his college; and afterwards Mathematical Lecturer and Humanity Reader.

In the midst of his professional occupations Ray appears to have devoted himself to that course of observation of the works of nature, which was afterwards to constitute the business and pleasure of his life, and upon which his enduring reputation was to be built. In 1660 he published his '*Catalogus Plantarum circa Cantabrigiam nascentium*,' which work he states to be the result of ten years of research. He must, therefore, have become a naturalist in the best sense of the word—he must have observed as well as read—at the period when he was struggling for university honours, and obtaining them in company with some of the most eminent persons of his own day. Before the publication of his catalogue, he had visited many parts of England and Wales, for the purpose chiefly of collecting their native plants; and his Itineraries, which were first published in 1760, under the title of '*Select Remains of the learned John Ray*,' show that he was a careful and diligent observer of every matter that could enlarge his understanding and correct his taste. His principal companion in his favourite studies was his friend and pupil, Francis Willughby.





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2 3 4

To our mutual pleasure
in the "new" piano

John & Mary - 1961 - 1962 - 1963 - 1964 - 1965

The first notes of the new piano



In December, 1660, Ray was ordained Deacon and Priest at the same time. But the chances of preferment in the church of England, which his admirable talents and learning, as well as the purity of his life and the genuine warmth of his piety, would probably have won for him, were at once destroyed by his honest and inflexible resolution not to subscribe to the conditions required by the Act of Uniformity of 1662, by which divines were called upon to swear that the oath entitled the Solemn League and Covenant was not binding upon those who had taken it. Ray was in consequence deprived of his fellowship. The affection of his pupil, Willughby, relieved him from the embarrassment which might have been a consequence of this misfortune. The two friends from this time appear to have dedicated themselves almost wholly to the study of natural history. They travelled upon the Continent for three years, from 1663 to 1666; and during the remainder of Willughby's life, which unfortunately was terminated in 1672, their time was principally occupied in observations which had for their object to examine and to register the various productions of nature, upon some method which should obviate the difficulty of those arbitrary and fanciful classifications which had prevailed up to their day. In the preface to his first botanical attempt, the Catalogue of Cambridge Plants, Ray describes the obstacles which he found in the execution of such a work;—he had no guide to consult, and he had to form a method of arrangement, solely by his own sagacity and patience. At that period, as he says in his 'Wisdom of God in the Creation,' "different colour, or multiplicity of leaves in the flower, and the like accidents, were sufficient to constitute a specific difference." From a conversation with Ray a short time before his death, Derham has described the object which the two friends had in their agreeable but laborious pursuits. "These two gentlemen, finding the history of nature very imperfect, had agreed between themselves, before their travels beyond sea, to reduce the several tribes of things to a method; and to give accurate descriptions of the several species, from a strict view of them." That Ray entered upon his task, however perplexing it might be, with the enthusiastic energy of a man really in love with his subject, we cannot doubt. "Willughby," says Derham, "prosecuted his design with as great application as if he had been to get his bread thereby." The good sense of Ray saw distinctly the right path in such an undertaking. There is a passage in his 'Wisdom of God,' which beautifully exhibits his own conception of the proper character of a naturalist: "Let it not suffice us to be book-learned, to read what others have written, and to take upon trust more falsehood than truth. But let us ourselves examine things as we have opportunity, and converse with nature as well as books. Let us endeavour to promote and

increase this knowledge, and make new discoveries ; not so much distrusting our own parts or despairing of our own abilities, as to think that our industry can add nothing to the invention of our ancestors, or correct any of their mistakes. Let us not think that the bounds of science are fixed like Hercules' pillars, and inscribed with a *ne plus ultra*. Let us not think we have done when we have learnt what they have delivered to us. The treasures of nature are inexhaustible. Here is employment enough for the vastest parts, the most indefatigable industries, the happiest opportunities, the most prolix and undisturbed vacancies." It is not difficult to imagine the two friends encouraging each other in their laborious career by sentiments such as these ; which are as worthy to be held in remembrance now that we are reaping the full advantage of their labours, and those of their many illustrious successors, as in the days when natural history was, for the most part, a tissue of extravagant fables and puerile conceits.

In 1667 Ray was admitted a Fellow of the Royal Society ; and he executed, about that time, a translation into Latin of his friend Bishop Wilkins' work, on a philosophical and universal language. In 1670 he published the first edition of his ' Catalogue of English Plants ;' and in 1672 appeared his ' Collection of English Proverbs ;' which he probably took up as a relaxation from his more systematic pursuits. In this year he suffered the irreparable loss of his friend Willughby. The history of letters presents us with few more striking examples of the advantages to the world, as well as to the individuals themselves, of such a cordial union for a great object. The affection of Ray for Willughby was of the noblest kind. He became the guardian and tutor of his children ; and he prepared his posthumous works for publication, with additions from his own pen, for which he claimed no credit, with a diligence and accuracy which showed that he considered the reputation of his friend as the most sacred of all trusts. In 1673, being in his forty-fifth year, Ray married. Willughby had left him an annuity of £60. He had three daughters. During the remainder of his long life, which reached to his 77th year, he resided in or near his native village, living contentedly, as a layman, upon very humble means, but indefatigably contributing to the advancement of natural history, and directing the study of it to the highest end,—the proof of the wisdom and goodness of the great Author of Nature.

The most celebrated of Ray's botanical publications is his ' Synopsis Methodica Stirpium Britannicarum.' Sir James Smith, in a memoir of Ray, in Rees's Encyclopaedia, declares that of all the systematical and practical Floras of any country, the second edition of Ray's Synopsis is the most perfect. The same writer, in the Transactions of the Linnaean Society, vol. iv., says of this Synopsis, " he examined every plant

recorded in his work, and even gathered most of them himself. He investigated their synonyms with consummate accuracy; and if the clearness and precision of other authors had equalled his, he would scarcely have committed an error." Ray's 'Methodus Plantarum Nova,' first published in 1682, has been superseded by other systems; but the accuracy of his observations, the precision of his language, and the clearness of his general views, tended greatly to the advancement of botanical science. His 'Historia Plantarum,' in three vols. folio, a vast compilation, including all the botanical knowledge of his day, is still in use, as a book of reference, by those who especially devote themselves to this study.

The zoological works of Ray have had a more direct and permanent influence upon the advancement of natural history, than his botanical. Amongst his zoological productions, the best authorities are agreed that we ought to include the greater part of those edited by him as the posthumous works of his friend Willughby. They are conceived upon the same principle as his own History of Plants, and are arranged upon a nearly similar plan; whilst the style of each is undoubtedly the same. In the original division of their great subject, Ray had chosen the vegetable kingdom, and Willughby the animal; and Ray, therefore, may have felt himself compelled to forego some of his own proper claims, that he might raise a complete monument to the memory of his friend. The Ornithology appeared in 1676; the History of Fishes in 1686. Ray, however, prepared several very important zoological works, of his entire claims to which there can be no doubt. The chief of these are, 'Synopsis methodica animalium quadrupedum et serpentini generis,' 1693, which he published during his life; 'Synopsis methodica avium,' and 'Synopsis methodica piscium,' edited by Derham, and published in 1713; and 'Historia insectorum,' printed at the expense of the Royal Society, in 1710. "The peculiar character of the zoological works of Ray," says Cuvier, "consists in clearer and more rigorous methods than those of any of his predecessors, and applied with more constancy and precision. The divisions which he has introduced into the classes of quadrupeds and birds have been followed by the English naturalists, almost to our own day; and one finds very evident traces of his system of birds in Linnæus, in Brisson, in Buffon, and in all the authors who are occupied with this class of animals. The Ornithology of Salerne is little more than a translation from the Synopsis; and Buffon has extracted from Willughby almost all the anatomical part of his History of Birds. Daubenton and Hauy have translated the History of Fishes, in great part, for their Dictionary of Ichthyology, in the 'Encyclopédie Methodique.'

'The Wisdom of God in the Creation' is the work upon which the

popular fame of Ray most deservedly rests. It is a book which perhaps more than any other in our language unites the precision of science to the warmth of devotion. It is delightful to see the ardour with which this good man dedicated himself to the observation of nature entering into his views of another state of existence, when our knowledge shall be made perfect, and the dim light with which we grope amidst the beautiful and wondrous objects by which we are surrounded, shall brighten into complete day. "It is not likely," says he, "that eternal life shall be a torpid and inactive state, or that it shall consist only in an uninterrupted and endless act of love; the other faculties shall be employed as well as the will, in actions suitable to, and perfective of their natures: especially the understanding, the supreme faculty of the soul, which chiefly differs in us from brute beasts, and makes us capable of virtue and vice, of rewards and punishments, shall be busied and employed in contemplating the works of God, and observing the divine art and wisdom manifested in the structure and composition of them; and reflecting upon their Great Architect the praise and glory due to him. Then shall we clearly see, to our great satisfaction and admiration, the ends and uses of those things, which here were either too subtle for us to penetrate and discover, or too remote and unaccessible for us to come to any distinct view of, viz. the planets and fixed stars; those illustrious bodies, whose contents and inhabitants, whose stores and furniture we have here so longing a desire to know, as also their mutual subserviency to each other. Now the mind of man being not capable at once to advert to more than one thing, a particular view and examination of such an innumerable number of vast bodies, and the great multitude of species, both of animate and inanimate beings, which each of them contains, will afford matter enough to exercise and employ our minds, I do not say to all eternity, but to many ages, should we do nothing else*."

In addition to his 'Wisdom of God,' Ray published three 'Physico-Theological Discourses, concerning the Chaos, Deluge, and Dissolution of the World.' "This last presents to us," to use the words of Cuvier, "a system of geology as plausible as any of those which had appeared at this epoch, or for a long time afterwards." He also printed a work expressly of a theological character, 'A Persuasive to a Holy Life.'

Ray died on the 17th January, 1705, at his native place of Black Notley, whither he had retired, at Midsummer, 1679, as he himself expressed, "for the short pittance of time he had yet to live in this world." His memory has been done justice to by his countrymen. A most interesting commemoration of him was held in London, on the 29th Nov., 1828, being the two hundredth anniversary of his birth.

* *Wisdom of God in the Creation*, p. 199, fifth edition.



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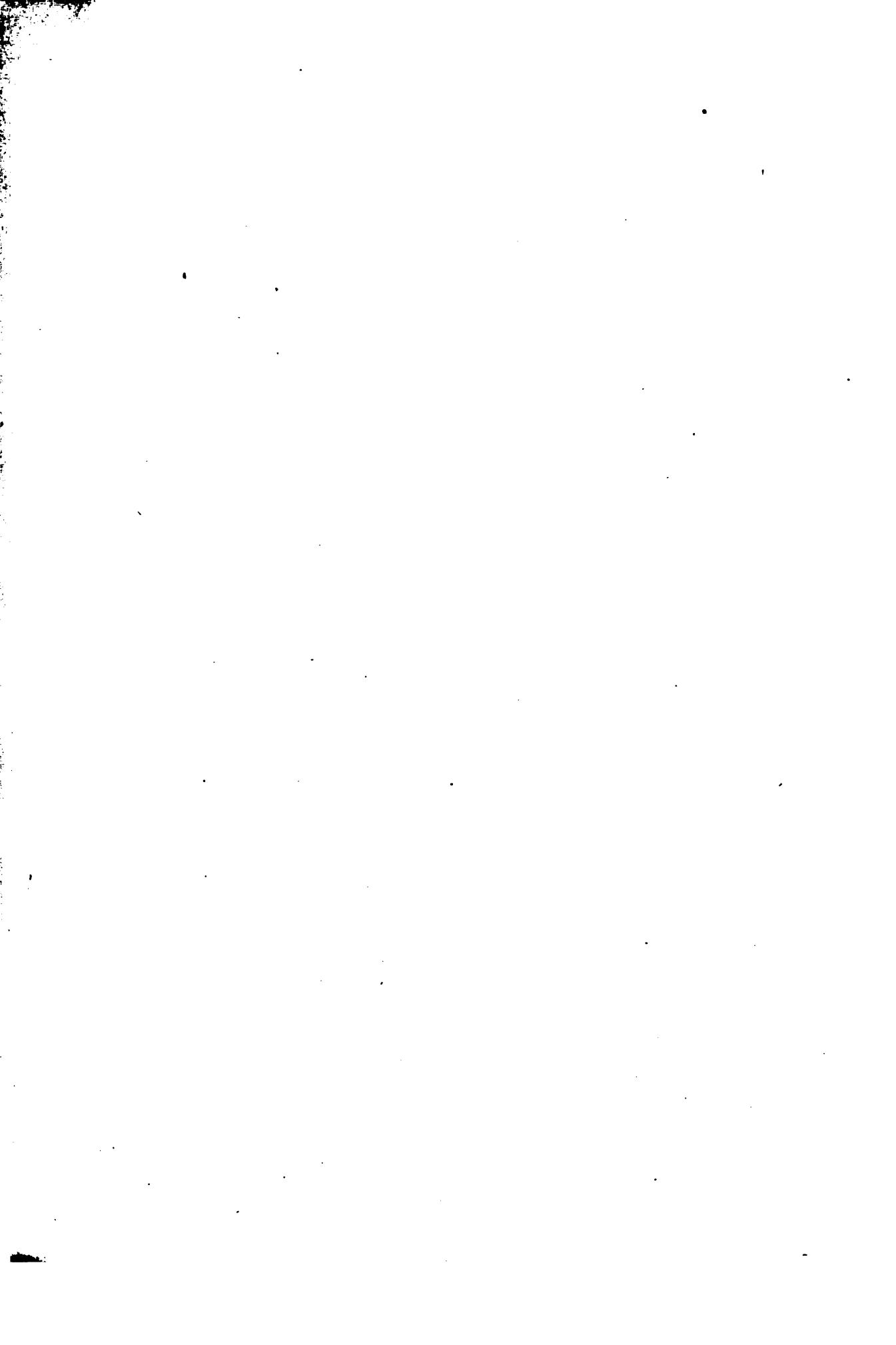
CAPITAL STRUCTURE

*Some empirical evidence of finance
in the pricing of financial investment*

Edited by Alan C. Harford and Michael J. Whaley

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JAMES COOK was born October 27, 1728, at Marton, a village in the North Riding of Yorkshire, near Stockton-upon-Tees. His parents, who were farm-servants, of good esteem in their rank of life, apprenticed him when not thirteen years of age to a haberdasher at the fishing town of Staith, near Whitby. The employment proved ill suited to his taste ; and he soon quitted it, and bound himself to a ship-owner at Whitby. In course of time he became mate of one of his master's vessels in the coal trade ; that best of schools for practical seamanship.

In the spring of 1755 he was lying in the Thames, when war was declared between England and France, and a hot press for seamen ensued. He volunteered to serve on board the Eagle frigate, commanded by Captain, afterwards Sir Hugh Palliser, and soon won the esteem of his officers by his diligence and activity. In May, 1759, he was promoted to be master of the Mercury, in which he was present at the celebrated siege of Quebec. At the recommendation of Captain Palliser, he was employed to take soundings of the river St. Lawrence, opposite to, and preparatory to an attack on the French fortified camp ; and in this hazardous service he manifested so much sagacity and resolution, that he was afterwards ordered to survey the river below Quebec. The accurate chart, which was published as the result of his labours, furnishes a most satisfactory proof of Cooke's natural talents and steady industry ; for he could have derived little aid in such pursuits from the habits of his early life. In the autumn he was removed into the Northumberland man-of-war, stationed at Halifax, in Nova Scotia ; and he employed his leisure during the long winter in making up for the defects of his education, which had been merely such as a village school could supply. He now read Euclid for the first time, and

applied himself to study those branches of science, which promised to be most useful in his profession. Towards the end of 1762 he returned to England, and married ; but in 1763 he again went out to make a survey of Newfoundland. In 1764, his steady friend, Sir Hugh Palliser, being appointed Governor of Newfoundland, Cook was made Marine Surveyor of Newfoundland and Labrador. He held this office nearly four years, and his charts of those coasts remain in use up to this day.

In 1767 Government determined, at the request of the Royal Society, to send out astronomers to the South Pacific Ocean to observe the transit of Venus across the sun's disc. Cook's able discharge of his duties at Newfoundland, and the skill with which he observed an eclipse of the sun there, pointed him out to Mr. Stephens, Secretary to the Admiralty, as a proper person to conduct the expedition : and at that gentleman's recommendation, backed by Sir Hugh Palliser, he was selected for this purpose, and raised to the rank of Lieutenant. He sailed from Plymouth, August 23, 1768, in the Endeavour, of three hundred and seventy tons, accompanied by Mr. Green as astronomer, and by Mr. Banks. Passing round Cape Horn, they anchored, April 11, 1769, at Otaheite, or Tahiti, as it is named by the latest visitors, which had been discovered by Captain Wallis, and was now selected as a proper place to observe the transit. As it was necessary to remain some time on the island, and highly expedient to be on good terms with the natives, Lieutenant Cook used much precaution to place the traffic between them and the strangers on an equitable footing ; and to prevent the wanton injuries which the sense of superior power, and an unjust contempt, too often induce Europeans to inflict upon the rude inhabitants of newly-discovered regions. And we may here mention, as one of the good points of Cook's character, that he always showed a scrupulous regard to the rights of property, taking no articles from the natives except on fair terms of gift or barter ; and that he had a tender regard for human life, not only avoiding to use our deadly weapons, as discoverers have too often done, in revenge for petty depredations, harmless insults, and contemptible attacks, but even restraining a natural curiosity, where the indulgence of it seemed likely to shock prejudices, or to lead to collision and bloodshed. The inhabitants of Otaheite are a gentle race, and no serious misunderstandings occurred between them and their visitors. The transit was satisfactorily observed June 3 ; and, July 13, the Endeavour resumed her voyage, pursuant to Cook's instructions, which were to prosecute his discoveries in the Southern Ocean, after the astronomical purposes of the expedition had been

fulfilled. He cruised a month among the then unknown group of the Society Islands, and afterwards proceeded in search of the Terra Australis, the great southern continent, so long supposed by geographers to exist, as a necessary counterpoise to the extensive continents of the northern hemisphere. Land was seen October 6, displaying lofty ranges of mountains ; and it was generally supposed that the long wished for discovery was made. It proved, however, to be New Zealand, unvisited by Europeans since Tasman first approached its shores, in 1642. Cook spent six months in circumnavigating this country, and ascertained that it consisted of two large islands. March 31, 1770, he commenced his voyage home. He directed his course along the eastern coast of New Holland, then quite unknown ; laid down a chart of it through nearly its whole extent ; and took every opportunity to increase our stock of knowledge in natural history, as well as geographical science. For more than 1300 miles he had safely navigated this most dangerous shore, where the sharp coral reefs rise like a wall to the surface of the water, when, on the night of June 10, the ship suddenly struck. She was found to be aground on a coral reef, which rose around her to within a few feet of the surface. Though lightened immediately by every possible means, two tides elapsed before she could be got off ; and then with so much injury to her bottom, that she could only be kept afloat by working three pumps night and day. When the men were all but worn out by this labour, a midshipman suggested the expedient of *fothering* the ship, or passing a sail charged with oakum, and other loose materials, under her keel : which succeeded so well, that the leak was then kept under by a single pump ; and the navigators proceeded in comparative security till the 14th, when a harbour was discovered, afterwards named Endeavour River, suitable for making the necessary repairs. It was then found that a large fragment of coral rock had stuck in the ship's bottom, so as in great measure to close the leak, which must otherwise have admitted a body of water sufficient to set the pumps at defiance. To this providential occurrence they owed their safety; for, had the ship foundered, the boats could not have contained the whole crew. Among many dangers, Cook pursued his course through that intricate tract of reefs and islands, which he named the Labyrinth, to the northern point of New Holland : and having now explored the whole eastern coast, from lat. 38° to $10^{\circ} 30'$, he took possession of it by the name of New South Wales. He then made sail for New Guinea, having proved that New Guinea and New Holland are separate islands, and from thence proceeded to Batavia, which he reached October 9. Here they obtained

refreshments and repaired the ship, which was found to be in a most perilous state: but these advantages were dearly bought by a sojourn in that pestilential place. Seven persons died at Batavia, and twenty-three more during the voyage to the Cape. June 12, 1771, the Endeavour dropped anchor in the Downs, and terminated her long and adventurous voyage.

The manner in which Lieutenant Cook had performed his task gave perfect satisfaction, and he was promoted to the rank of Commander. The public curiosity was strongly roused to know the particulars of his adventures; and it was gratified by an account of the several expeditions to the Southern Ocean, commanded by Byron, Wallis, and Cook, composed by Dr. Hawkesworth from the original materials, and illustrated by charts and plates, engraved at the expense of Government. Cook communicated to the Royal Society an 'Account of the flowing of the Tides in the South Sea,' published in their Transactions, vol. lxii. His voyage had proved two things: first, that neither New Zealand or New Holland were parts of the great southern continent, supposing it to exist; secondly, that no such continent could exist to the northward of 40° S. lat. He had not, however, ascertained its non-existence in higher latitudes, nor did it enter into his commission to do so. Now, however, it was resolved to send out a second expedition, to ascertain this point, under the command of him who had so ably conducted the former one. Two ships were fitted out with every thing conducive to the health and comfort of the voyagers: the Resolution, of four hundred and sixty tons, and a smaller vessel, the Adventure, Captain Furneaux; which, however, was separated from her consort early in the second year of the voyage. They sailed from Plymouth, July 13, 1772. Captain Cook's instructions were, to circumnavigate the globe in high southern latitudes, prosecuting his discoveries as near to the South Pole as possible, using every exertion to fall in with the supposed continent, or any islands which might exist in those unknown seas; and endeavouring, by all proper means, to cultivate a friendship and alliance with the inhabitants. The expedition left the Cape of Good Hope Nov. 22, and cruised, for near four months, between the Cape and New Zealand, from E. long. 20° to 170° , their extreme point to the southward being lat. $67^{\circ} 15'$. Having satisfied himself that no land of great extent could exist between these longitudes, to the northward of 60° S. lat., Cook made sail for New Zealand, to refresh his crew, and reached it March 26, 1773. The winter months, corresponding to our midsummer, he spent at the Society Islands; and returning to New Zealand, he again sailed,

November 26, in quest of a southern continent, inclining his course to the east. He first fell in with ice in lat. $62^{\circ} 10'$, W. long. 172° , and continued to steer S.E. to lat. $67^{\circ} 31'$, W. long. $142^{\circ} 54'$, when, finding it impossible at that time to get farther south, he returned northwards, as far as lat. 50° , that he might be certain that no extensive country had been left in that direction. January 6, 1774, he again shaped his course southward, and on the 30th reached his extreme point of southing, lat. $71^{\circ} 10'$, W. long. $106^{\circ} 54'$. Here he was stopped by ice, which it was the general opinion might extend to the Pole, or join some land to which it had been fixed from the earliest time. Returning northwards, during the winter months he traversed nearly the whole extent of the Pacific Ocean between the tropics, visiting Easter Island, the Marquesas, the Society and Friendly Islands, the New Hebrides, and another island, the largest yet discovered in the Pacific, except those of New Zealand, which he called New Caledonia. He then returned to New Zealand, and having passed three weeks in friendly intercourse with the natives, took his departure, November 10. Having cruised in various latitudes between 43° and 56° , a portion of the ocean which he had not yet explored, and being in W. long. $138^{\circ} 56'$, he determined to steer direct for the western entrance of the Straits of Magellan, and thence, along Tierra del Fuego, to the Straits of Le Maire. December 29 he passed Cape Horn, and re-entered the Atlantic Ocean, and standing southward, discovered Sandwich Land, a desolate coast, the extreme point of which he named the Southern Thule, lat. $59^{\circ} 13'$, as the most southern land that had then been discovered. Later navigators have found land nearer to the Pole. "I concluded," Captain Cook observes, "that Sandwich Land was either a group of islands, or else a point of the continent, for I firmly believe that there is a tract of land near the Pole, which is the source of most of the ice which is spread over this vast southern ocean. I also think it probable that it extends farthest to the north, opposite the Southern Atlantic and Indian Oceans, because ice was always found by us farther to the north in these oceans than any where else." Having now encompassed the globe in a high latitude, and thinking it impossible to prosecute further researches in those tempestuous seas with a worn-out ship, and nearly exhausted provisions, Cook made sail for the Cape; and arrived there March 22, 1774, having sailed 20,000 leagues since he had left it, without so much injury to the ship as springing a mast or yard. July 30 he anchored at Spithead.

He was received in England with high applause, posted, and made a Captain of Greenwich Hospital. On this occasion he published his

own Journal, illustrated by maps and engravings ; and the composition, unpretending, but clear and manly, does honour to one whose education had been so rude. Being elected Fellow of the Royal Society, he contributed two papers to their Transactions, published in vol. lxvi., one relating to the tides in the South Seas, the other containing an account of the methods which he had taken to preserve the health of his ship's crew. The ravages of scurvy are now so much checked, that few know from experience how dreadfully earlier navigators suffered from that disease. It is one of Cook's peculiar merits, that he attended to the health of his seamen with such eminent success, that during this long and painful voyage, not one man died of scurvy. Four only died, out of a hundred and twelve persons on board the Resolution, and of these but one was carried off by disease. That this was, in a great degree, the merit of the Captain, is proved by the Adventure having suffered much more, though fitted out exactly in the same way. Sailors usually dislike changes in their mode of life; and it required judgment and perseverance to induce them to adopt a healthy regimen. Cook, however, succeeded in reconciling them to his innovations; of the utility of which they were perfectly convinced, long before the end of the voyage. The means which he used will be found fully detailed in his paper, which was honoured by the Society with the gold medal : those on which he chiefly relied were a large supply of antiscorbutic stores, as malt, sour krout, and portable broth ; the enforcement of a vegetable diet, whenever vegetables could be procured ; and great care not to expose the crew unnecessarily to the weather, and to keep their persons, their clothes, and their berths, clean, dry, and well aired. Cook was justly proud of his success in this respect, and he closed the account of his second voyage with words which show the humanity and modesty of his temper. " Whatever may be the public judgment about other matters, it is with real satisfaction, and without claiming any other merit but that of attention to my duty, that I can conclude this account with an observation, which facts enable me to make, that our having discovered the possibility of preserving health among a numerous ship's company for such a length of time, in such varieties of climate, and amid such continued hardships and fatigues, will make this voyage remarkable, in the opinion of every benevolent person, when the disputes about the southern continent shall have ceased to engage the attention and to divide the judgment of philosophers."

Another geographical question, of still greater interest, engaged the attention of the nation at this time ; the practicability of a north-east

passage to China and the Indies. During Cook's absence, one expedition had been sent out, under Captain Phipps; it was now determined to send out a second, reversing the usual order, and trying to find a passage from the Pacific into the Atlantic Ocean. Cook volunteered to quit his well-earned repose, and take the direction of this enterprise; and the offer was gladly accepted. He was directed to proceed, by the Cape of Good Hope, to New Zealand, thence through the chain of islands scattered along the tropics, which he had already visited. This done, he was to proceed northward, with all dispatch, to the latitude of 65° , and to direct his attention to the discovery of a passage into the Atlantic; and by the extension of an existing Act of Parliament, the ship's company, if successful, were entitled to a reward of £20,000. With a most praiseworthy benevolence, the ships were charged with cattle, sheep, and other useful animals, to be left, and naturalized, if possible, in New Zealand, Otaheite, and other islands. The Resolution and Discovery were fitted out for the voyage, with every attention to the health and comfort of their crews. They sailed from Plymouth July 12, 1776, and touching at New Zealand, reached the Friendly Islands so late in the spring of 1777, that Captain Cook thought it impossible to visit the Polar Seas to any purpose that year. He therefore spent the whole summer in this part of the ocean, where fresh provisions were abundant; and his men were relieved from the hardships and sicknesses commonly incident to a long voyage, while, at the same time, the ship's stores were economized. He remained therefore near three months among the Friendly Islands, using all means of adding to the geographical knowledge of this intricate archipelago, and acquiring information relative to the natural history of the country, and the manners of the inhabitants, with whom an uninterrupted friendship was maintained. July 17, Cook pursued his course to the Society Islands. Both here and at the Friendly Islands, especially at Otaheite, he left a number of European animals; and the prudence, as well as benevolence, of this conduct, is evinced by the valuable supplies which whalers and other navigators of the southern seas have since drawn from them. Early in December he took a final leave of these regions; and, January 18, 1778, came in sight of an unknown group, to which he gave the name of Sandwich Islands. March 7, the west coast of North America was seen; and after spending a month in executing necessary repairs in Nootka Sound, the voyagers advanced to the Aleutian Islands, and up Behring's Strait. Here Cook ascertained the continents of Asia and America to be only thirteen leagues apart; and laid down the position of the most westerly point of America,

just without the Arctic Circle, which he named Cape Prince of Wales. August 18 he reached lat. $70^{\circ} 44'$, W. long. about 162° , his extreme point, and continued to traverse those frozen regions till August 29, when, the ice being daily increasing, it was time to seek a more genial climate. But before proceeding to the south, he employed some time in examining the coasts of Asia and America, and found reason to admire the correctness of Behring, the discoverer of the strait which bears that name. He passed the winter at the Sandwich Islands, intending to return northward early enough to reach Kamtschatka by the middle of May in the ensuing year.

During this second visit was discovered the island of Owhyhee, the largest and most important of the group, at which the strangers were received with unusual generosity and confidence. Near ten weeks were spent in sailing round it, without any serious disagreement arising with the natives; and Cook ceased to regret that he had as yet failed in meeting with a northern passage home. It is remarkable that his Journal concludes with the following words: "To this disappointment we owed our having it in our power to revisit the Sandwich Islands, and to enrich our voyage with a discovery, which though the last, seemed in many respects to be the most important that had hitherto been made by Europeans, throughout the extent of the Pacific Ocean."

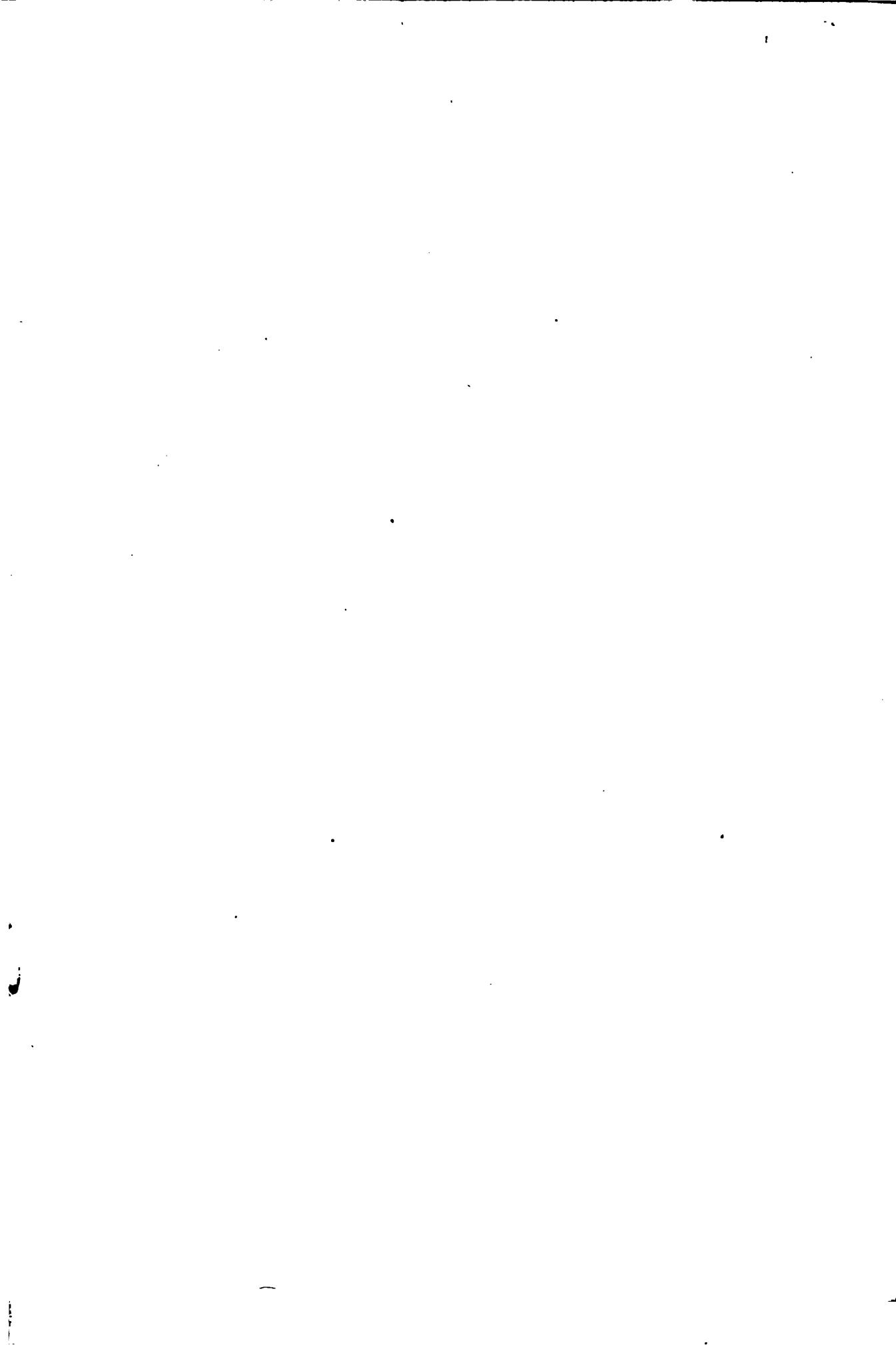
This island, which he had rejoiced so much to see, was the spot where our great navigator's life was prematurely closed. We have the testimony of an eye-witness to his own belief, that no premeditated and treacherous assault had been planned; but that the fatal affray was one of those accidents which human foresight cannot always prevent. The natives of these, as of all the South Sea Islands, were much addicted to stealing the new and tempting articles presented to their view; a fault for which Captain Cook, with the benevolence usually displayed in his dealings with them, has offered a charitable and sensible apology. But on the night of February 13, one of the ship's boats was stolen. To recover this was a matter of importance; and Cook went on shore, guarded only by a small number of marines, hoping by amicable means to gain possession of the person of the king of the district, which he had always found the most effectual method of regaining stolen articles. The king consented to go on board the Resolution; but a crowd collected, and indications of alarm and hostility gradually increased, until blows were made at Captain Cook, and he was obliged to fire in self-defence. A shower of stones was then discharged at the marines, who returned it with a volley, and

this drew on the fire of the boats' crews. Cook turned round to stop the firing, and order the boats to come close in to shore; but a rush had been made on the marines as soon as their muskets were discharged, and they were driven into the water, where four were killed, the rest escaping to the boats. Cook was the last person left on shore; and he was making for the pinnace, when an Indian came behind him and struck him with a club. He sunk on one knee, and as he rose was stabbed by another Indian in the neck. He fell into shallow water within five or six yards of one of the boats; but there all was confusion, and no united effort was made to save him. He struggled vigorously, but was overcome by numbers; and at last was struck down, not to rise again. His body, with the other slain, was abandoned to the natives, and though every exertion was subsequently made, nothing more than the bones, and not all of them, were recovered. These were committed to the deep with military honours; honoured more highly by the unfeigned sorrow of those who sailed under his command.

Captain Clerke, of the Discovery, succeeded to the command of the expedition, and returned in the ensuing summer to the Polar Seas; but he was unable to advance so far as in the former year. The chief object of the voyage therefore failed. The ships returned along the coast of Kamtschatka to Japan and China, and reached England in October, 1780. Captain Clerke died of consumption in his second visit to the Polar Seas, and Lieutenant King succeeded to the Discovery, whose name is honourably associated with that of his great commander, in consequence of his having continued the account of the voyage, from the period at which Cook's Journal ends. He has borne testimony to Cook's virtues in the following terms:—

“ The constitution of his body was robust, inured to labour, and capable of undergoing the severest hardships. His stomach bore without difficulty the coarsest and most ungrateful food. Great was the indifference with which he submitted to every kind of self-denial. The qualities of his mind were of the same hardy, vigorous kind with those of his body. His understanding was strong and perspicacious. His judgment, in whatever related to the services he was engaged in, quick and sure. His designs were bold and manly; and both in the conception, and in the mode of execution, bore evident marks of a great original genius. His courage was cool and determined, and accompanied with an admirable presence of mind in the moment of danger. His temper might, perhaps, have been justly blamed as subject to hastiness and passion, had not these been disarmed by a disposition the most

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In 1761 he was made Intendant of Limoges ; and on his appointment Voltaire wrote to him, saying, "I have lately learnt from one of your colleagues that an Intendant can do nothing but mischief : you, I trust, will prove that he can do much good." These anticipations were fully realized. The inhabitants of his province, overburthened at all times by the oppressive imposts of the *Taille*, the *Corvée*, and the Militia service, were then suffering under the added pressure of three successive years of scarcity. The *Taille* was in the nature of a land-tax : which fell upon the landlords in those parts of the country which were cultivated by farmers ; but principally upon the labourers themselves, wherever the *Métayer* system was in force, as in Limousin. A more equal distribution of this tax, and an improved method of collection, relieved the peasant from the great injustice of the burden. The *Corvée* was an obligation to furnish labour in kind, twice every year, for the construction and repair of public roads ; for which the peasantry received no remuneration. Turgot proposed that this task should for the future be executed by hired labourers, whose wages were to be paid by a rate levied upon the districts

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volent exertions. In spite of his new regulations, supported by a clear explanation of the grounds upon which they rested, the land-owners and corn-merchants could not transport their grain to those places where the price was highest, the want therefore most urgent, and the supply most beneficial, without exposing their persons to insults, and their property to the pillage of the people, as well as to the local taxes imposed by the magistrates. Turgot lost no time in addressing a circular to the proper officers, in which he urged them, by the pleas both of reason and authority, to put in force the laws, and check the popular irritation. He showed that the difference of weather often produces an abundant harvest in some districts, and a deficient one in others; and that the only effectual way of relieving the necessary distress in the latter, is to permit the free transport of the surplus produce of the former: that if one town were to arrogate the right of prohibiting the transit or export of grain, other towns would justly pretend to the same privilege; and that what might be felt as a benefit to the inhabitants of one spot in a year of external scarcity, would be deprecated by the same persons as a curse in a year of internal famine. The clearness and conciliatory tone with which the principle of the freedom of trade was laid down, produced the desired effect; and the writer had the satisfaction of seeing the wants of the people supplied, without recurring to the demoralizing expedient of indiscriminate charity.

Soon after the success of this experiment, the Minister of Finance consulted the Intendants of the kingdom upon the laws relating to the commerce of grain. Turgot wrote seven letters in answer, in which he developed at length his views on the subject of free trade; and not long after he composed an essay on the Formation of Wealth, which, as his celebrated biographer Condorcet observes, may be considered as the germ of Smith's Wealth of Nations.

These unremitting exertions, joined to views so just and at that time so original, attracted the attention of the public; and on the death of Louis XV. Turgot was called to the first offices of the state, as the only man who seemed likely to restore the failing credit of the nation, do justice to the people, and prevent those political troubles which did in fact ensue, and ended in confiscation and bloodshed. He undertook the difficult task with cheerfulness, but not without some misgivings. The aristocracy and the court could not long remain favourable to a minister who would not cater to their luxuries; the clergy naturally viewed with suspicion one who was devoted to the most rigid economy; public opinion was not sufficiently advanced to appreciate the measures of a statesman whose genius far surpassed the knowledge of his day;

and even if it had been more enlightened, it had not the means of expressing itself powerfully and almost simultaneously as in England. Turgot therefore had no support to rely on but that of the King; but while the monarch remained firm, there was still a hope that the statesman might accomplish his objects. After filling the post of Minister of Marine for one month, he was raised to the office of Minister of Finance, August 24, 1774. Nothing could be more encouraging to him than his first audience of the King; it was more like the confidential intercourse of two friends considering in truth and sincerity the best means of promoting the happiness of their common country, than a cold and formal state conference. Turgot, with the permission of his sovereign, recapitulated what had occurred at this meeting, in a letter which is above all praise. In it he enforced the absolute necessity of the most rigid economy, in order to prevent a national bankruptcy, any increase of taxes, or any new loans. "No bankruptcy, either avowed, or disguised under compulsory reductions. No increase of taxes. The reason your Majesty will find in the situation of your people, and still more in your own heart. No new loans; for every loan, by diminishing the free revenue, necessarily leads at last to a bankruptcy or an increase of taxes." The means by which he proposed to bring about these ends were the most rigid retrenchments. "But," he adds, "it is asked, in what is the retrenchment to be made? and every department will maintain that as far as relates to itself there is scarcely a single expense which is not indispensable. The reasons alleged may be very good; but as there can be none for performing impossibilities, all these reasons must give way to the irresistible necessity of economy. Your Majesty knows that one of the greatest obstacles to economy is the multitude of solicitations to which you are perpetually exposed. Your benevolence, Sir, must be the shield against your bounty. Consider whence the money distributed amongst your courtiers is drawn; and contrast the misery of those from whom it is sometimes necessary to wrest it by the most rigorous measures, with the situation of those who have the best title to your liberality." Such a course was sure to raise up enemies on every side. He anticipates the calumnies which will be heaped upon him; he points them out to the King, and then reminds him, "It is upon the faith of your Majesty's promises that I take upon myself a burthen which is perhaps heavier than I can bear; it is to yourself personally, to the honest, the just, and the good man, rather than to the King, that I devote myself."

From this letter it might be supposed by those who are not

benevolent and humane. Such were the outlines of Captain Cook's character; but its most distinguishing feature was that unremitting perseverance in the pursuit of his object, which was not only superior to the opposition of dangers, and the pressure of hardships, but even exempt from the want of ordinary relaxation. During the long and tedious voyages in which he was engaged, his eagerness and activity were never in the least abated. No incidental temptation could detain him for a moment: even those intervals of recreation which sometimes unavoidably occurred, and were looked for by us with a longing, that persons who have experienced the fatigues of service will readily excuse, were submitted to by him with a certain impatience, whenever they could not be employed in making a farther provision for the more effectual prosecution of his designs."

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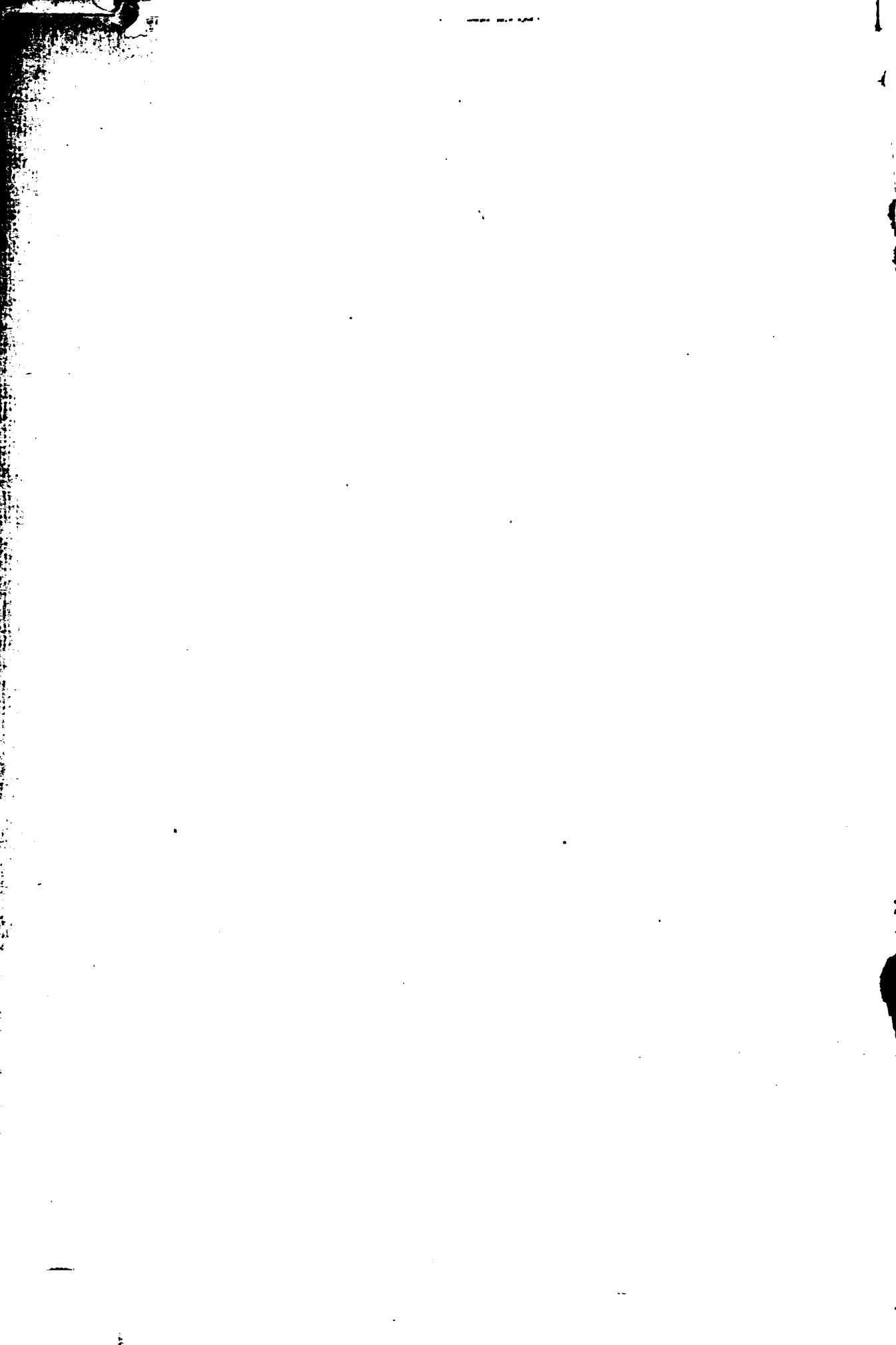


to your mother
John









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were clothed and disciplined in the European manner ; the Russian army at that time being little better than a tribe of Tartars. As soon as the little corps was formed, Peter caused himself to be enrolled in it as a private soldier. It is a remarkable trait in the character of the man, that he thought no condescension degrading, which forwarded any of his ends. In the army he entered himself in the lowest rank, and performed successively the duties of every other : in the navy he went still further, for he insisted on performing the menial duties of the lowest cabin-boy, rising step by step, till he was qualified to rate as an able seaman. Nor was this done merely for the sake of singularity ; he had resolved that every officer of the sea or land service should enter in the lowest rank of his profession, that he might obtain a practical knowledge of every task or manœuvre which it was his duty to see properly executed : and he felt that his nobility might scarcely be brought to submit to what in their eyes would be a degradation, except by the personal example of the Czar himself. By the help of Lefort and some veteran officers, several of whom, and those the objects of his especial confidence, were Scotchmen, he was enabled in a short time to command the services of a large body of disciplined troops, composed, one corps principally of foreigners, another of natives. Meanwhile he had not been negligent of the other arm of war ; for a number of Dutch and Venetian workmen were employed in building gun-boats and small ships of war at Voronitz, on the river Don, intended to secure the command of the sea of Asof, and to assist in capturing the strong town of Asof, then held by the Turks. The possession of this place was of great importance, from its situation at the mouth of the Don, commanding access to the Mediterranean seas. His first military attempts were accordingly directed against it, and he succeeded in taking it in 1696.

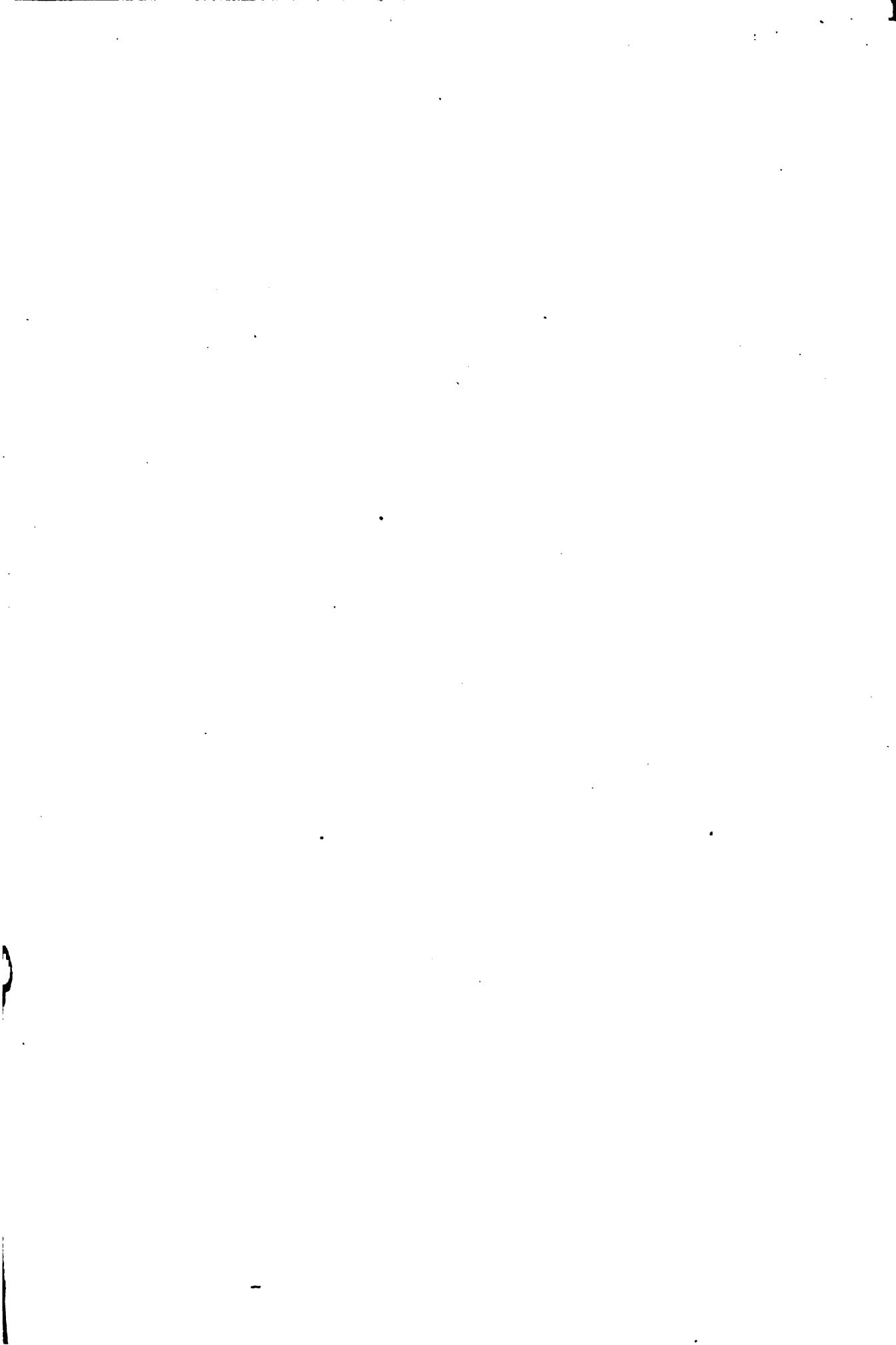
In the spring of the ensuing year, the empire being tranquil, and the young Czar's authority apparently established on a safe footing, he determined to travel into foreign countries, to view with his own eyes, and become personally and practically familiar with the arts and institutions of refined nations. There was a grotesqueness in his manner of executing this design, which has tended, more probably than even its real merit, to make it one of the common places of history. Every child knows how the Czar of Muscovy worked in the dock-yard of Saardam in Holland, as a common carpenter. In most men this would have been affectation ; and perhaps there was some tinge of that weakness in the earnestness with which Peter handled the axe, obeyed the officers of the dock-yard, and, in all points of outward man-

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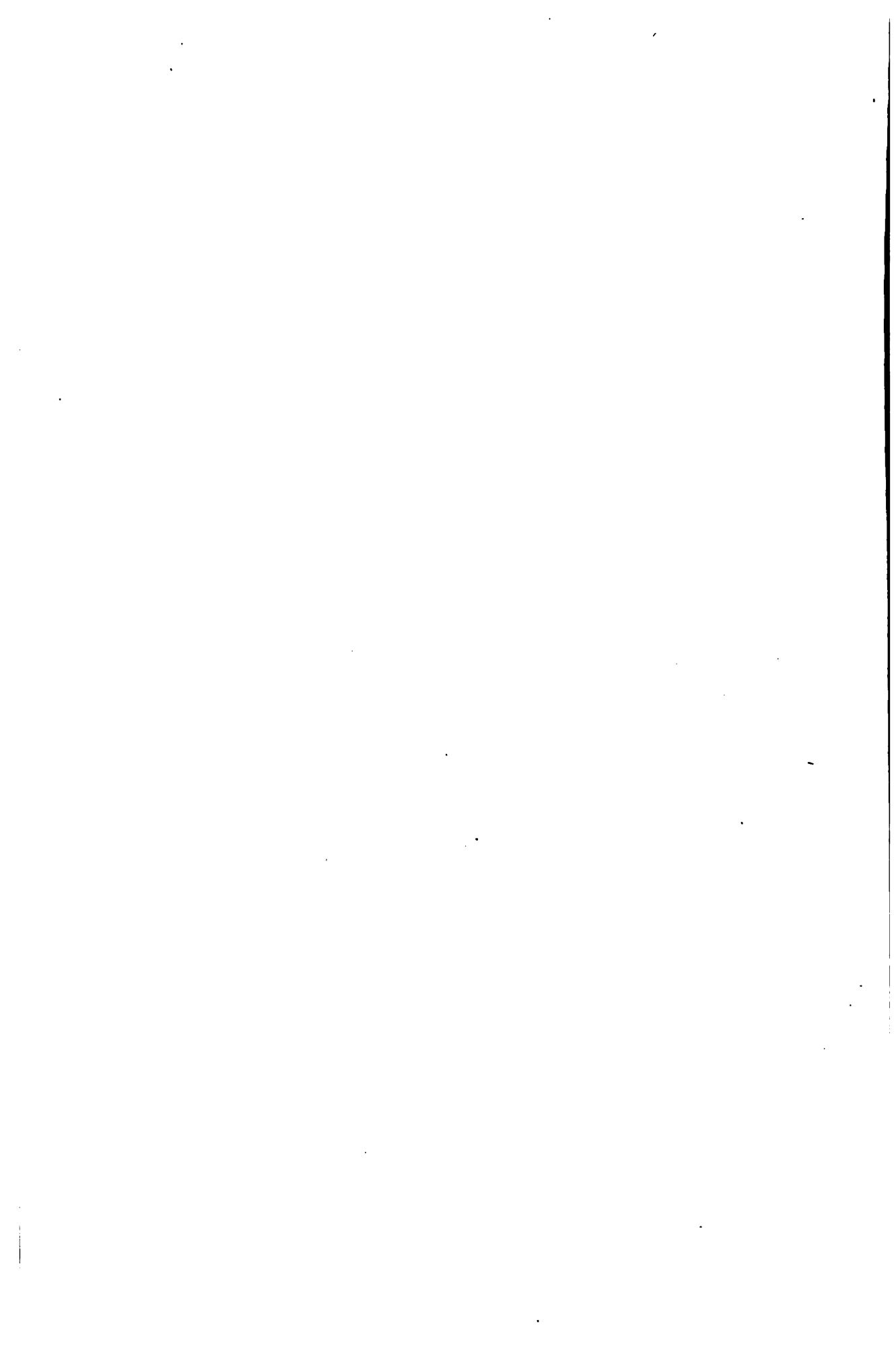
It was the custom in France, during the period of Turgot's boyhood, that parents should decide upon the profession to which their children should be educated, even from the cradle; little voice in this most important question being allowed to those who were most deeply interested in it. Turgot was the youngest of three sons; of whom

the eldest was destined to the magistracy, the second to the army, the third, the subject of this memoir, was set apart for the church. The premature determination of his parents seemed amply justified as his character was gradually developed. Great simplicity of manner, pensiveness of mind, extreme diffidence and reserve, a distaste to dissipation of any kind, habits of intense application, and an ardent love of knowledge, were his prominent qualities, and well suited to the ecclesiastical life. Nevertheless he had hardly reached the age of reflection, and become capable of appreciating the objects of ambition, which, from the political consideration in which his family was held, he might reasonably aspire to, before he resolved to sacrifice all to an unfettered conscience; and to follow that path in which he thought he could be most useful to his fellow-citizens and mankind. Deeply impressed however with a sense of what was due to the feelings of his parents, he waited till a favourable opportunity should occur to disclose his secret determination; and was in the mean time, at the age of twenty-one, admitted to the establishment of the Sorbonne, as a student of theology. Here he remained two years; prosecuting his studies with vigour, but without confining them to a profession which he had resolved not to follow. Nothing seemed too vast to discourage him, or too trifling to escape his notice. Mathematics and natural philosophy, metaphysics, logic, morals, legislation and law; history, belles lettres, poetry, Latin, Greek, Hebrew, together with most of the modern languages, entered into the comprehensive catalogue of his pursuits. So great an activity of mind, joined to a memory so retentive that he could repeat two hundred lines of verse after hearing them read twice, and sometimes only once, stored his mind with an extent and variety of knowledge unusual at his, or indeed at any age. After taking his degree, and being elected Prior of the establishment, he could no longer conceal his intention of relinquishing the profession of the church. His friends and associates, amongst others the Abbés Bon, Morellet, and de Brienne, remonstrated with him in vain on his determination. "Follow the advice," he replied, "which you offer, since you are able to do so: for my own part, it is impossible for me to wear a mask all my life."

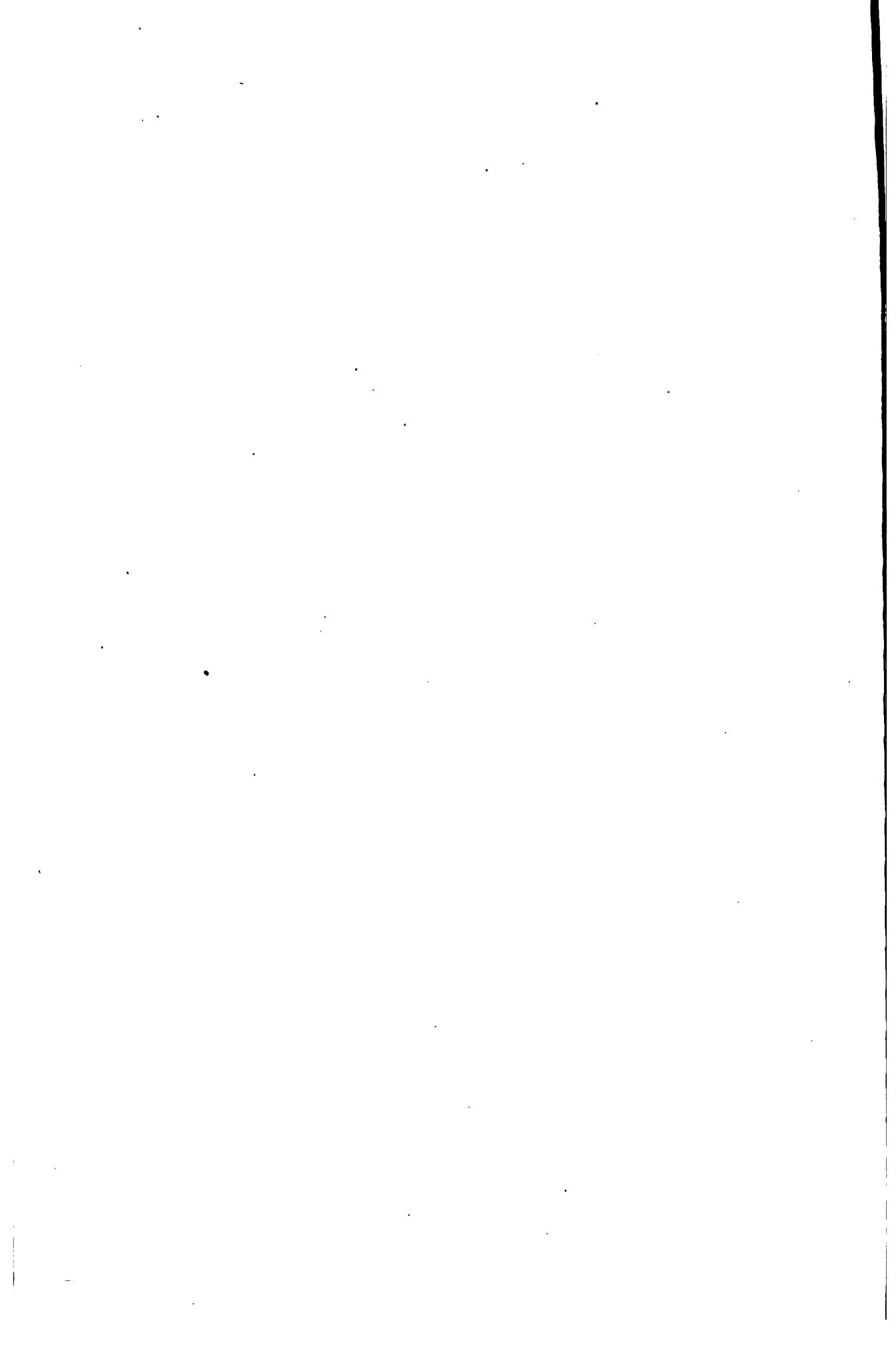
He had determined to pursue his fortune in the civil service of the state; and his father's death obviated the difficulties which might have embarrassed him in carrying his resolution into effect. He obtained the office of Procureur du Roi as a first step in his new career, and soon after that of Master of Requests. In this situation he had to make several reports, and to deliver them *vivè voce* before

the King. Aware of his extreme diffidence, he resolved to counteract it by writing out and revising his speech with great attention. He did so ; nothing was omitted, and yet the subject was summed up with such severe conciseness as greatly to fatigue the patience of his hearers. Some of them, complimenting him on his performance, at the same time criticised its length. "The next time," they added, "try to abridge what you have to say." Turgot, who knew that it was impossible to have abridged more, learnt by this remark that he had abridged too much ; and on the next occasion, profiting by his singularly acquired knowledge, he developed his facts at length, repeated his arguments, and recapitulated all that he had urged ; and in doing so, fixed without fatiguing the attention of his audience. When he had finished, the same friends, as he expected, congratulated him warmly on having corrected his former defect, saying, "This time you have told us a great deal and you have been very brief."

In 1761 he was made Intendant of Limoges ; and on his appointment Voltaire wrote to him, saying, "I have lately learnt from one of your colleagues that an Intendant can do nothing but mischief : you, I trust, will prove that he can do much good." These anticipations were fully realized. The inhabitants of his province, overburthened at all times by the oppressive imposts of the *Taille*, the *Corvée*, and the Militia service, were then suffering under the added pressure of three successive years of scarcity. The *Taille* was in the nature of a land-tax : which fell upon the landlords in those parts of the country which were cultivated by farmers ; but principally upon the labourers themselves, wherever the *Métayer* system was in force, as in Limousin. A more equal distribution of this tax, and an improved method of collection, relieved the peasant from the great injustice of the burden. The *Corvée* was an obligation to furnish labour in kind, twice every year, for the construction and repair of public roads ; for which the peasantry received no remuneration. Turgot proposed that this task should for the future be executed by hired labourers, whose wages were to be paid by a rate levied upon the districts adjacent to the road. The evils of the Militia service were obviated in a similar way ; and the people who had received their new Intendant with suspicion, as only a new specimen of their former oppressors, now looked upon him as a benefactor and a friend. Nevertheless his popularity could not overcome all prejudices ; and when he endeavoured to mitigate the evils occasioned by the late scarcity, by introducing a free traffic in grain, both the magistrates and the peasantry did all in their power to counteract his wise and bene-







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